Appendix A

Spot membrane peptide sequences

Human RIIα (used in Figs. 3.12B and 3.13A)

Spot	MW	Sequence
A 1	2851.4	M-S-H-I-Q-I-P-P-G-L-T-E-L-L-Q-G-Y-T-V-E-V-L-R-Q-Q
A 2	2776.3	I-P-P-G-L-T-E-L-L-Q-G-Y-T-V-E-V-L-R-Q-Q-P-P-D-L-V
A 3	2874.2	T-E-L-L-Q-G-Y-T-V-E-V-L-R-Q-Q-P-P-D-L-V-E-F-A-V-E
A 4	2970.4	G-Y-T-V-E-V-L-R-Q-Q-P-P-D-L-V-E-F-A-V-E-Y-F-T-R-L
A 5	3004.5	V-L-R-Q-Q-P-P-D-L-V-E-F-A-V-E-Y-F-T-R-L-R-E-A-R-A
A 6	2847.4	P-P-D-L-V-E-F-A-V-E-Y-F-T-R-L-R-E-A-R-A-P-A-S-V-L
A 7	2763.3	E-F-A-V-E-Y-F-T-R-L-R-E-A-R-A-P-A-S-V-L-P-A-A-T-P
A 8	2729.4	Y-F-T-R-L-R-E-A-R-A-P-A-S-V-L-P-A-A-T-P-R-Q-S-L-G
A 9	2606.0	R-E-A-R-A-P-A-S-V-L-P-A-A-T-P-R-Q-S-L-G-H-P-P-P-E
A10	2544.9	P-A-S-V-L-P-A-A-T-P-R-Q-S-L-G-H-P-P-P-E-P-G-P-D-R
A11	2561.9	P-A-A-T-P-R-Q-S-L-G-H-P-P-P-E-P-G-P-D-R-V-A-D-A-K
A12	2599.9	R-Q-S-L-G-H-P-P-P-E-P-G-P-D-R-V-A-D-A-K-G-D-S-E-S
A13	2675.7	H-P-P-P-E-P-G-P-D-R-V-A-D-A-K-G-D-S-E-S-E-E-D-E-D
A14	2655.8	P-G-P-D-R-V-A-D-A-K-G-D-S-E-S-E-E-D-E-D-L-E-V-P-V
A15	2734.9	V-A-D-A-K-G-D-S-E-S-E-E-D-E-D-L-E-V-P-V-P-S-R-F-N
B 1	2848.0	G-D-S-E-S-E-E-D-E-D-L-E-V-P-V-P-S-R-F-N-R-R-V-S-V
B 2	2924.1	E-E-D-E-D-L-E-V-P-V-P-S-R-F-N-R-R-V-S-V-S-A-E-T-Y
B 3	2891.1	L-E-V-P-V-P-S-R-F-N-R-R-V-S-V-S-A-E-T-Y-N-P-D-E-E
B 4	2943.0	P-S-R-F-N-R-R-V-S-V-S-A-E-T-Y-N-P-D-E-E-E-E-D-T-D
B 5	2944.0	R-R-V-S-V-S-A-E-T-Y-N-P-D-E-E-E-E-D-T-D-P-R-V-I-H
B 6	2916.9	S-A-E-T-Y-N-P-D-E-E-E-E-D-T-D-P-R-V-I-H-P-K-T-D-E
B 7	3006.1	N-P-D-E-E-E-E-D-T-D-P-R-V-I-H-P-K-T-D-E-Q-R-S-R-L
B 8	2965.2	E-E-D-T-D-P-R-V-I-H-P-K-T-D-E-Q-R-S-R-L-Q-E-A-S-K
B 9	2977.6	P-R-V-I-H-P-K-T-D-E-Q-R-S-R-L-Q-E-A-S-K-D-I-L-L-F
B10	2973.6	P-K-T-D-E-Q-R-S-R-L-Q-E-A-S-K-D-I-L-L-F-K-N-L-D-Q
B11	2988.6	Q-R-S-R-L-Q-E-A-S-K-D-I-L-L-F-K-N-L-D-Q-E-Q-L-S-Q
B12	2877.5	Q-E-A-S-K-D-I-L-L-F-K-N-L-D-Q-E-Q-L-S-Q-V-L-D-A-M
B13	2978.7	D-I-L-L-F-K-N-L-D-Q-E-Q-L-S-Q-V-L-D-A-M-F-E-R-I-V
B14	2957.4	K-N-L-D-Q-E-Q-L-S-Q-V-L-D-A-M-F-E-R-I-V-K-A-D-E-H
B15	2871.3	E-Q-L-S-Q-V-L-D-A-M-F-E-R-I-V-K-A-D-E-H-V-I-D-Q-G
C 1	2802.2	V-L-D-A-M-F-E-R-I-V-K-A-D-E-H-V-I-D-Q-G-D-D-G-D-N
C 2	2924.3	F-E-R-I-V-K-A-D-E-H-V-I-D-Q-G-D-D-G-D-N-F-Y-V-I-E
C 3	2872.2	K-A-D-E-H-V-I-D-Q-G-D-D-G-D-N-F-Y-V-I-E-R-G-T-Y-D
C 4	2846.4	V-I-D-Q-G-D-D-G-D-N-F-Y-V-I-E-R-G-T-Y-D-I-L-V-T-K
C 5	2948.4	D-D-G-D-N-F-Y-V-I-E-R-G-T-Y-D-I-L-V-T-K-D-N-Q-T-R
C 6	2966.5	F-Y-V-I-E-R-G-T-Y-D-I-L-V-T-K-D-N-Q-T-R-S-V-G-Q-Y
C 7	2844.3	R-G-T-Y-D-I-L-V-T-K-D-N-Q-T-R-S-V-G-Q-Y-D-N-R-G-S
C 8	2769.3	I-L-V-T-K-D-N-Q-T-R-S-V-G-Q-Y-D-N-R-G-S-F-G-E-L-A
C 9	2837.3	D-N-Q-T-R-S-V-G-Q-Y-D-N-R-G-S-F-G-E-L-A-L-M-Y-N-T
C10	2719.3	S-V-G-Q-Y-D-N-R-G-S-F-G-E-L-A-L-M-Y-N-T-P-R-A-A-T
C11	2656.3	D-N-R-G-S-F-G-E-L-A-L-M-Y-N-T-P-R-A-A-T-I-V-A-T-S
C12	2699.4	F-G-E-L-A-L-M-Y-N-T-P-R-A-A-T-I-V-A-T-S-E-G-S-L-W
C13	2722.4	L-M-Y-N-T-P-R-A-A-T-I-V-A-T-S-E-G-S-L-W-G-L-D-R-V
C14	2773.5	P-R-A-A-T-I-V-A-T-S-E-G-S-L-W-G-L-D-R-V-T-F-R-R-I
C15	2845.6	I-V-A-T-S-E-G-S-L-W-G-L-D-R-V-T-F-R-R-I-I-V-K-N-N
D 1	2985.9	E-G-S-L-W-G-L-D-R-V-T-F-R-R-I-I-V-K-N-N-A-K-K-R-K
D 2	3055.0	G-L-D-R-V-T-F-R-R-I-I-V-K-N-N-A-K-K-R-K-M-F-E-S-F
D 3	3039.9	T-F-R-R-I-I-V-K-N-N-A-K-K-R-K-M-F-E-S-F-I-E-S-V-P
D 4	2920.9	I-V-K-N-N-A-K-K-R-K-M-F-E-S-F-I-E-S-V-P-L-L-K-S-L
D 5	2952.8	A-K-K-R-K-M-F-E-S-F-I-E-S-V-P-L-L-K-S-L-E-V-S-E-R
D 6	2927.7	M-F-E-S-F-I-E-S-V-P-L-L-K-S-L-E-V-S-E-R-M-K-I-V-D
D 7	2812.6	I-E-S-V-P-L-L-K-S-L-E-V-S-E-R-M-K-I-V-D-V-I-G-E-K

Spot	MW	Sequence
D 8	2863.8	L-L-K-S-L-E-V-S-E-R-M-K-I-V-D-V-I-G-E-K-I-Y-K-D-G
D 9	2921.7	E-V-S-E-R-M-K-I-V-D-V-I-G-E-K-I-Y-K-D-G-E-R-I-I-T
D10	2834.7	M-K-I-V-D-V-I-G-E-K-I-Y-K-D-G-E-R-I-I-T-Q-G-E-K-A
D11	2873.7	V-I-G-E-K-I-Y-K-D-G-E-R-I-I-T-Q-G-E-K-A-D-S-F-Y-I
D12	2862.6	I-Y-K-D-G-E-R-I-I-T-Q-G-E-K-A-D-S-F-Y-I-I-E-S-G-E
D13	2811.6	E-R-I-I-T-Q-G-E-K-A-D-S-F-Y-I-I-E-S-G-E-V-S-I-L-I
D14	2827.6	Q-G-E-K-A-D-S-F-Y-I-I-E-S-G-E-V-S-I-L-I-R-S-R-T-K
D15	2815.6	D-S-F-Y-I-I-E-S-G-E-V-S-I-L-I-R-S-R-T-K-S-N-K-D-G
E 1	2717.3	I-E-S-G-E-V-S-I-L-I-R-S-R-T-K-S-N-K-D-G-G-N-Q-E-V
E 2	2758.4	V-S-I-L-I-R-S-R-T-K-S-N-K-D-G-G-N-Q-E-V-E-I-A-R-S
E 3	2846.3	R-S-R-T-K-S-N-K-D-G-G-N-Q-E-V-E-I-A-R-S-H-K-G-Q-Y
E 4	2735.2	S-N-K-D-G-G-N-Q-E-V-E-I-A-R-S-H-K-G-Q-Y-F-G-E-L-A
E 5	2789.3	G-N-Q-E-V-E-I-A-R-S-H-K-G-Q-Y-F-G-E-L-A-L-V-T-N-K
E 6	2744.4	E-I-A-R-S-H-K-G-Q-Y-F-G-E-L-A-L-V-T-N-K-P-R-A-A-S
E 7	2649.3	H-K-G-Q-Y-F-G-E-L-A-L-V-T-N-K-P-R-A-A-S-A-Y-A-V-G
E 8	2578.3	F-G-E-L-A-L-V-T-N-K-P-R-A-A-S-A-Y-A-V-G-D-V-K-S-L
E 9	2633.2	L-V-T-N-K-P-R-A-A-S-A-Y-A-V-G-D-V-K-S-L-V-M-D-V-Q
E10	2694.3	P-R-A-A-S-A-Y-A-V-G-D-V-K-S-L-V-M-D-V-Q-A-F-E-R-L
E11	2697.4	A-Y-A-V-G-D-V-K-S-L-V-M-D-V-Q-A-F-E-R-L-L-G-P-S-M
E12	2879.7	D-V-K-S-L-V-M-D-V-Q-A-F-E-R-L-L-G-P-S-M-D-I-M-K-R
E13	2951.7	V-M-D-V-Q-A-F-E-R-L-L-G-P-S-M-D-I-M-K-R-N-I-S-H-Y
E14	2977.7	A-F-E-R-L-L-G-P-S-M-D-I-M-K-R-N-I-S-H-Y-E-E-Q-L-V
E15	2911.7	L-G-P-S-M-D-I-M-K-R-N-I-S-H-Y-E-E-Q-L-V-K-M-F-G-S
F 1	2897.6	D-I-M-K-R-N-I-S-H-Y-E-E-Q-L-V-K-M-F-G-S-S-V-D-L-G
F 2	2822.4	R-N-I-S-H-Y-E-E-Q-L-V-K-M-F-G-S-S-V-D-L-G-N-L-G-Q

Rat AKAP18δ (used in Figs. 3.13B and C)

Spot	MW	Sequence
A 1	2628.1	M-E-R-P-A-A-G-E-I-D-A-N-K-S-D-H-L-S-R-G-E-E-G-T-G
A 2	2589.0	A-G-E-I-D-A-N-K-S-D-H-L-S-R-G-E-E-G-T-G-D-L-E-T-S
A 3	2557.0	A-N-K-S-D-H-L-S-R-G-E-E-G-T-G-D-L-E-T-S-P-V-G-S-L
A 4	2585.1	H-L-S-R-G-E-E-G-T-G-D-L-E-T-S-P-V-G-S-L-A-D-L-P-F
A 5	2504.0	E-E-G-T-G-D-L-E-T-S-P-V-G-S-L-A-D-L-P-F-A-A-V-D-I
A 6	2533.0	D-L-E-T-S-P-V-G-S-L-A-D-L-P-F-A-A-V-D-I-Q-D-D-S-G
A 7	2509.0	P-V-G-S-L-A-D-L-P-F-A-A-V-D-I-Q-D-D-S-G-L-P-D-V-P
A 8	2550.9	A-D-L-P-F-A-A-V-D-I-Q-D-D-S-G-L-P-D-V-P-Q-G-N-V-P
A 9	2531.8	A-A-V-D-I-Q-D-D-S-G-L-P-D-V-P-Q-G-N-V-P-Q-G-N-P-K
A10	2676.9	Q-D-D-S-G-L-P-D-V-P-Q-G-N-V-P-Q-G-N-P-K-R-S-K-E-N
A11	2773.1	L-P-D-V-P-Q-G-N-V-P-Q-G-N-P-K-R-S-K-E-N-R-G-D-R-N
A12	2859.2	Q-G-N-V-P-Q-G-N-P-K-R-S-K-E-N-R-G-D-R-N-D-H-V-K-K
A13	2975.6	Q-G-N-P-K-R-S-K-E-N-R-G-D-R-N-D-H-V-K-K-R-K-K-A-K
A14	3082.7	R-S-K-E-N-R-G-D-R-N-D-H-V-K-K-R-K-K-A-K-K-D-Y-Q-P
A15	3092.8	R-G-D-R-N-D-H-V-K-K-R-K-K-A-K-K-D-Y-Q-P-N-Y-F-L-S
B 1	3032.8	D-H-V-K-K-R-K-K-A-K-K-D-Y-Q-P-N-Y-F-L-S-I-P-I-T-N
B 2	2966.9	R-K-K-A-K-K-D-Y-Q-P-N-Y-F-L-S-I-P-I-T-N-K-K-I-T-A
B 3	2865.8	K-D-Y-Q-P-N-Y-F-L-S-I-P-I-T-N-K-K-I-T-A-G-I-K-V-L
B 4	2789.8	N-Y-F-L-S-I-P-I-T-N-K-K-I-T-A-G-I-K-V-L-Q-N-S-I-L
B 5	2834.7	I-P-I-T-N-K-K-I-T-A-G-I-K-V-L-Q-N-S-I-L-R-Q-D-N-R
B 6	2840.8	K-K-I-T-A-G-I-K-V-L-Q-N-S-I-L-R-Q-D-N-R-L-T-K-A-M
B 7	2714.5	G-I-K-V-L-Q-N-S-I-L-R-Q-D-N-R-L-T-K-A-M-V-G-D-G-S
B 8	2815.5	Q-N-S-I-L-R-Q-D-N-R-L-T-K-A-M-V-G-D-G-S-F-H-I-T-L
B 9	2844.6	R-Q-D-N-R-L-T-K-A-M-V-G-D-G-S-F-H-I-T-L-L-V-M-Q-L
B10	2775.5	L-T-K-A-M-V-G-D-G-S-F-H-I-T-L-L-V-M-Q-L-L-N-E-D-E
B11	2715.3	V-G-D-G-S-F-H-I-T-L-L-V-M-Q-L-L-N-E-D-E-V-N-I-G-T
B12	2841.5	F-H-I-T-L-L-V-M-Q-L-L-N-E-D-E-V-N-I-G-T-D-A-L-L-E
B13	2814.5	L-V-M-Q-L-L-N-E-D-E-V-N-I-G-T-D-A-L-L-E-L-K-P-F-V
B14	2843.4	L-N-E-D-E-V-N-I-G-T-D-A-L-L-E-L-K-P-F-V-E-E-I-L-E

Spot	MW	Sequence
B15	2779.5	V-N-I-G-T-D-A-L-L-E-L-K-P-F-V-E-E-I-L-E-G-K-H-L-T
C 1	2846.6	D-A-L-L-E-L-K-P-F-V-E-E-I-L-E-G-K-H-L-T-L-P-F-H-G
C 2	2851.6	L-K-P-F-V-E-E-I-L-E-G-K-H-L-T-L-P-F-H-G-I-G-T-F-Q
C 3	2755.4	E-E-I-L-E-G-K-H-L-T-L-P-F-H-G-I-G-T-F-Q-G-Q-V-G-F
C 4	2668.4	G-K-H-L-T-L-P-F-H-G-I-G-T-F-Q-G-Q-V-G-F-V-K-L-A-D
C 5	2627.2	L-P-F-H-G-I-G-T-F-Q-G-Q-V-G-F-V-K-L-A-D-G-D-H-V-S
C 6	2615.3	I-G-T-F-Q-G-Q-V-G-F-V-K-L-A-D-G-D-H-V-S-A-L-L-E-I
C 7	2569.2	G-Q-V-G-F-V-K-L-A-D-G-D-H-V-S-A-L-L-E-I-A-E-T-A-K
C 8	2742.3	V-K-L-A-D-G-D-H-V-S-A-L-L-E-I-A-E-T-A-K-R-T-F-Q-E
C 9	2698.4	G-D-H-V-S-A-L-L-E-I-A-E-T-A-K-R-T-F-Q-E-K-G-I-L-A
C10	2733.5	A-L-L-E-I-A-E-T-A-K-R-T-F-Q-E-K-G-I-L-A-G-E-S-R-T
C11	2816.5	A-E-T-A-K-R-T-F-Q-E-K-G-I-L-A-G-E-S-R-T-F-K-P-H-L
C12	2936.8	R-T-F-Q-E-K-G-I-L-A-G-E-S-R-T-F-K-P-H-L-T-F-M-K-L
C13	2789.8	K-G-I-L-A-G-E-S-R-T-F-K-P-H-L-T-F-M-K-L-S-K-A-P-M
C14	2919.9	G-E-S-R-T-F-K-P-H-L-T-F-M-K-L-S-K-A-P-M-L-W-K-K-G
C15	3015.1	F-K-P-H-L-T-F-M-K-L-S-K-A-P-M-L-W-K-K-G-V-R-K-I-E
D 1	2952.0	T-F-M-K-L-S-K-A-P-M-L-W-K-K-G-V-R-K-I-E-P-G-L-Y-E
D 2	2971.8	S-K-A-P-M-L-W-K-K-G-V-R-K-I-E-P-G-L-Y-E-Q-F-I-D-H
D 3	3075.8	L-W-K-K-G-V-R-K-I-E-P-G-L-Y-E-Q-F-I-D-H-R-F-G-E-E
D 4	3093.8	V-R-K-I-E-P-G-L-Y-E-Q-F-I-D-H-R-F-G-E-E-I-L-Y-Q-I
D 5	3001.7	P-G-L-Y-E-Q-F-I-D-H-R-F-G-E-E-I-L-Y-Q-I-D-L-S-S-M
D 6	3067.9	Q-F-I-D-H-R-F-G-E-E-I-L-Y-Q-I-D-L-S-S-M-L-K-K-K-Q
D 7	3011.9	R-F-G-E-E-I-L-Y-Q-I-D-L-S-S-M-L-K-K-K-Q-S-N-G-Y-Y
D 8	2920.7	I-L-Y-Q-I-D-L-S-S-M-L-K-K-K-Q-S-N-G-Y-Y-H-S-E-S-S
D 9	2801.5	D-L-S-S-M-L-K-K-K-Q-S-N-G-Y-Y-H-S-E-S-S-I-V-I-G-E
D10	2924.6	L-K-K-K-Q-S-N-G-Y-Y-H-S-E-S-S-I-V-I-G-E-K-D-R-K-E
D11	2840.2	S-N-G-Y-Y-H-S-E-S-S-I-V-I-G-E-K-D-R-K-E-P-E-D-A-E
D12	2824.3	H-S-E-S-S-I-V-I-G-E-K-D-R-K-E-P-E-D-A-E-L-V-R-L-S
D13	2922.6	I-V-I-G-E-K-D-R-K-E-P-E-D-A-E-L-V-R-L-S-K-R-L-V-E
D14	2936.6	K-D-R-K-E-P-E-D-A-E-L-V-R-L-S-K-R-L-V-E-N-A-V-L-K
D15	2869.4	P-E-D-A-E-L-V-R-L-S-K-R-L-V-E-N-A-V-L-K-A-V-Q-Q-Y
E 1	2928.5	L-V-R-L-S-K-R-L-V-E-N-A-V-L-K-A-V-Q-Q-Y-L-E-E-T-Q
E 2	2955.4	K-R-L-V-E-N-A-V-L-K-A-V-Q-Q-Y-L-E-E-T-Q-N-K-K-Q-P
E 3	2774.1	N-A-V-L-K-A-V-Q-Q-Y-L-E-E-T-Q-N-K-K-Q-P-G-E-G-N-S
E 4	2805.0	A-V-Q-Q-Y-L-E-E-T-Q-N-K-K-Q-P-G-E-G-N-S-V-K-A-E-E
E 5	2715.0	L-E-E-T-Q-N-K-K-Q-P-G-E-G-N-S-V-K-A-E-E-G-D-R-N-G
E 6	2602.9	N-K-K-Q-P-G-E-G-N-S-V-K-A-E-E-G-D-R-N-G-D-G-S-D-N
E 7	2630.9	Q-P-G-E-G-N-S-V-K-A-E-E-G-D-R-N-G-D-G-S-D-N-N-R-K

Appendix B

Sequence alignment of regulatury PKA subunits (RII)

```
                                                                   Section 1
                     (1) 1            10              20              30              40                   56
  PKA-RIIalpha_mouse (1) MSHIQIPAGLTELLQGYTVEVLRQQPPDLVDFAVEYFTRLREARRQE---------
  PKA-RIIalpha_human (1) MSHIQIPPGLTELLQGYTVEVLRQQPPDLVEFAVEYFTRLREARAPA---------
    PKA-RIIbeta_rat  (1) -MSIEIPAGLTELLQGFTVEVLRHQPADLLEFALQHFTRLQQENERKGAARFGHEG
           Consensus (1) MSHIQIPAGLTELLQGYTVEVLRQQPPDLVEFAVEYFTRLREAR
                                                                   Section 2
                    (57) 57           70              80              90             100                  112
  PKA-RIIalpha_mouse (48) ----SDTFIVSPTTFHTQ---ESSAVPVIEEDGESDSDSEDADLEVPVPSKFTRRV
  PKA-RIIalpha_human (48) ----SVLPAATPRQSLGHPPPEPGPDRVADAKGDSESE-EDEDLEVPVPSRFNRRV
    PKA-RIIbeta_rat  (56) RTWGDAGAAAGGGTPSKGVNFAEEPMRSDSENGEEEEAAEAGAFNAPVINRFTRRA
           Consensus (57)     S   AASP T       E  PMRV DE GESESDAEDADLEVPVPSRFTRRV
                                                                   Section 3
                   (113) 113    120             130             140             150                  168
  PKA-RIIalpha_mouse (97) SVCAETFNPDEEEEDNDPRVVHPKTDEQRCRLQEACKDILLFKNLDQEQLSQVLDA
  PKA-RIIalpha_human (99) SVCAETYNPDEEEEDTDPRVIHPKTDEQRCRLQEACKDILLFKNLDQEQLSQVLDA
    PKA-RIIbeta_rat (112) SVCAEAYNPDEEEDDAESRIIHPKTDDQRNRLQEACKDILLFKNLDPEQMSQVLDA
          Consensus (113) SVCAETYNPDEEEED DPRVIHPKTDEQRCRLQEACKDILLFKNLDQEQLSQVLDA
                                                                   Section 4
                   (169) 169          180             190             200             210                  224
 PKA-RIIalpha_mouse (153) MFEKIVKTDEHVIDQGDDGDNFYVIERGTYDILVTKDNQTRSVGQYDNRGSFGELA
 PKA-RIIalpha_human (155) MFERIVKADEHVIDQGDDGDNFYVIERGTYDILVTKDNQTRSVGQYDNRGSFGELA
    PKA-RIIbeta_rat (168) MFEKLVKEGEHVIDQGDDGDNFYVIDRGTFDIYVKCDGVGRCVGNYDNRGSFGELA
          Consensus (169) MFEKIVK DEHVIDQGDDGDNFYVIERGTYDILVTKDNQTRSVGQYDNRGSFGELA
                                                                   Section 5
                   (225) 225  230             240             250             260             270          280
 PKA-RIIalpha_mouse (209) LMYNTPRAATIIATSEGSLWGLDRVTFRRIIVKNNAKKRKMFESFIESVPLFKSLE
 PKA-RIIalpha_human (211) LMYNTPRAATIVATSEGSLWGLDRVTFRRIIVKNNAKKRKMFESFIESVPLLKSLE
    PKA-RIIbeta_rat (224) LMYNTPRAATITATSPGALWGLDRVTFRRIIVKNNAKKRKMYESFIESLPFLKSLE
          Consensus (225) LMYNTPRAATIIATSEGSLWGLDRVTFRRIIVKNNAKKRKMFESFIESVPLLKSLE
                                                                   Section 6
                   (281) 281          290             300             310             320                  336
 PKA-RIIalpha_mouse (265) MSERMKIVDVIGEKIYKDGERIIAQGEKADSFYIIESGEVSILIRSKTKSNKNGGN
 PKA-RIIalpha_human (267) VSERMKIVDVIGEKIYKDGERIITQGEKADSFYIIESGEVSILIRSRTKSNKDGGN
    PKA-RIIbeta_rat (280) VSERLKVVDVIGTKVYNDGEQIIAQGDSADSFFIVESGEVRITMKRKGKSDIEE-N
          Consensus (281) VSERMKIVDVIGEKIYKDGERIIAQGEKADSFYIIESGEVSILIRSKTKSNKDGGN
                                                                   Section 7
                   (337) 337              350             360             370             380             392
 PKA-RIIalpha_mouse (321) QEVEIAHCHKGQYFGELALVTNKPRAASAYAVGDVKCLVMDVQAFERLLGPCMDIM
 PKA-RIIalpha_human (323) QEVEIARCHKGQYFGELALVTNKPRAASAYAVGDVKCLVMDVQAFERLLGPCMDIM
    PKA-RIIbeta_rat (335) GAVEIARCLRGQYFGELALVTNKPRAASAHAIGTVKCLAMDVQAFERLLGPCMEIM
          Consensus (337) QEVEIARCHKGQYFGELALVTNKPRAASAYAVGDVKCLVMDVQAFERLLGPCMDIM
                                                                   Section 8
                   (393) 393    400                 418
 PKA-RIIalpha_mouse (377) KRNISHYEEQLVKMFGSNLDLMDPGQ
 PKA-RIIalpha_human (379) KRNISHYEEQLVKMFGSSVDLGNLGQ
    PKA-RIIbeta_rat (391) KRNIATYEEQLVALFGTNMDIVEPTA
          Consensus (393) KRNISHYEEQLVKMFGSNLDLMDPGQ
```

Appendix C

Fluorescence anisotropy screening data

Plate no. 1

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	103	101	103	102	103	104	102	104	101	103	103	102	104	104	101	101	104	103	108	103	103	86	49	100
B	100	102	97	100	101	99	98	101	98	99	101	99	101	99	101	102	100	101	101	100	101	100	48	102
C	97	101	100	101	111	102	99	101	97	102	102	102	103	103	103	101	106	100	102	103	101	103	99	105
D	99	107	99	101	100	101	97	102	99	99	100	99	104	102	103	78	102	106	101	98	100	102	101	105
E	99	105	100	105	128	100	98	101	99	102	101	100	102	100	104	101	100	102	102	101	98	105	107	102
F	99	104	101	99	100	101	99	102	103	100	96	102	102	96	99	103	100	99	99	103	102	103	106	102
G	99	100	114	102	102	99	96	99	98	102	98	101	103	101	104	104	103	100	106	103	102	103	78	53
H	102	102	100	101	101	102	99	99	102	102	99	100	101	106	102	110	98	104	98	99	101	104	76	51
I	102	102	107	100	96	102	99	100	102	102	101	98	100	100	103	103	98	99	102	105	103	106	52	80
J	98	104	100	104	105	95	100	101	102	104	103	99	102	100	104	80	104	100	104	104	106	104	52	81
K	102	103	107	103	102	101	98	103	100	99	101	100	102	101	102	102	105	109	96	104	105	111	106	108
L	102	105	103	102	100	103	93	101	100	103	102	98	103	102	96	78	103	103	104	102	97	105	103	108
M	101	101	114	113	103	102	96	97	100	97	102	101	102	103	104	102	103	114	105	106	57	105	107	103
N	99	102	103	102	101	103	102	97	103	98	132	97	102	100	105	104	107	106	104	106	103	106	107	106
O	103	102	107	107	104	101	100	97	101	98	103	100	105	105	103	104	106	104	104	104	105	105	104	50
P	100	102	102	103	100	103	101	97	57	99	103	102	99	103	104	102	102	103	102	105	105	105	103	51

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 50

Calculation of z'-Factor (from raw data)

	Mean	SD	
0 nM RIIα	50	1	
10 nM RIIα	102	2	
Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =			53
3*Sum of SDs			10.63
3*Sum of SDs/Sum of means			0.07
Z'-factor			**0.93**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	54	52	54	53	54	55	53	55	52	54	54	53	55	55	52	52	55	54	59	54	54	37	-1	51
B	51	53	48	51	52	50	49	52	49	50	52	50	52	50	52	53	51	52	52	51	52	51	-2	53
C	48	52	51	52	62	53	50	52	48	53	53	53	54	54	54	52	57	51	53	54	52	54	50	56
D	50	58	50	52	51	52	48	53	50	50	51	50	55	53	54	29	53	57	52	49	51	53	52	56
E	50	56	51	56	79	51	49	52	50	53	52	51	53	51	55	52	51	53	53	52	49	56	58	53
F	50	55	52	50	51	52	50	53	54	51	47	53	53	47	50	54	51	50	50	54	53	54	57	53
G	50	51	65	53	53	50	47	50	49	53	49	52	54	52	55	55	54	51	57	54	53	54	29	4
H	53	53	51	52	52	53	50	50	53	53	50	51	52	57	53	61	49	55	49	50	52	55	27	2
I	53	53	58	51	47	53	50	51	53	53	52	49	51	51	54	54	49	50	53	56	54	57	3	31
J	49	55	51	55	56	46	51	52	53	55	54	50	53	51	55	31	55	51	55	55	57	55	3	32
K	53	54	58	54	53	52	49	54	51	50	52	51	53	52	53	53	56	60	47	55	56	62	57	59
L	53	56	54	53	51	54	44	52	51	54	53	49	54	53	47	29	54	54	55	53	48	56	54	59
M	52	52	65	64	54	53	47	48	51	48	53	52	53	54	55	53	54	65	56	57	8	56	58	54
N	50	53	54	53	52	54	53	48	54	49	83	48	53	51	56	55	58	57	55	57	54	57	58	57
O	54	53	58	58	55	52	51	48	52	49	54	51	56	56	54	55	57	55	55	55	56	56	55	1
P	51	53	53	54	51	54	52	48	8	50	54	53	50	54	55	53	53	54	53	56	56	56	54	2

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 53

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-1	94	109	54	5	107	109
	-3	98	107	50	5	101	109
	1	101	111	58	7	100	105
	3	107	111	60	3	100	105
		103					
		101					
		96					
		100					
Mean	0	100	109	55	5	102	107
SD	2	4	2	4	2	4	2
SEM	1	2	1	2	1	2	1

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	101	98	101	100	101	103	100	103	98	101	101	100	103	103	98	98	103	101	113	101	101	69	-1	96
B	96	100	90	96	98	94	92	98	92	94	98	94	98	94	98	100	96	98	98	96	98	96	-3	100
C	90	98	96	98	117	100	94	98	90	100	100	100	101	101	101	98	107	96	100	101	98	101	94	105
D	94	109	94	98	96	98	90	100	94	94	96	94	103	100	101	54	100	107	98	92	96	100	98	105
E	94	105	96	105	149	96	92	98	94	100	98	96	100	96	103	98	96	100	100	98	92	105	109	100
F	94	103	98	94	96	98	94	100	101	96	88	100	100	88	94	101	96	94	94	101	100	101	107	100
G	94	96	122	100	100	94	88	94	92	100	92	98	101	98	103	103	101	96	107	101	100	101	54	7
H	100	100	96	98	98	100	94	94	100	100	94	96	98	107	100	115	92	103	92	94	98	103	50	3
I	100	100	109	96	88	100	94	96	100	100	98	92	96	96	101	101	92	94	100	105	101	107	5	58
J	92	103	96	103	105	86	96	98	100	103	101	94	100	96	103	58	103	96	103	103	107	103	5	60
K	100	101	109	101	100	98	92	101	96	94	98	96	100	98	100	100	105	113	88	103	105	117	107	111
L	100	105	101	100	96	101	82	98	96	101	100	92	101	100	88	54	101	101	103	100	90	105	101	111
M	98	98	122	120	101	100	88	90	96	90	100	98	100	101	103	100	101	122	105	107	14	105	109	101
N	94	100	101	100	98	101	100	90	101	92	58	90	100	96	105	103	109	107	103	107	101	107	109	107
O	101	100	109	109	103	98	96	90	98	92	101	96	105	105	101	103	107	103	103	103	105	105	103	1
P	96	100	100	101	96	101	98	90	14	94	101	100	94	101	103	100	100	101	100	105	105	105	101	3

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

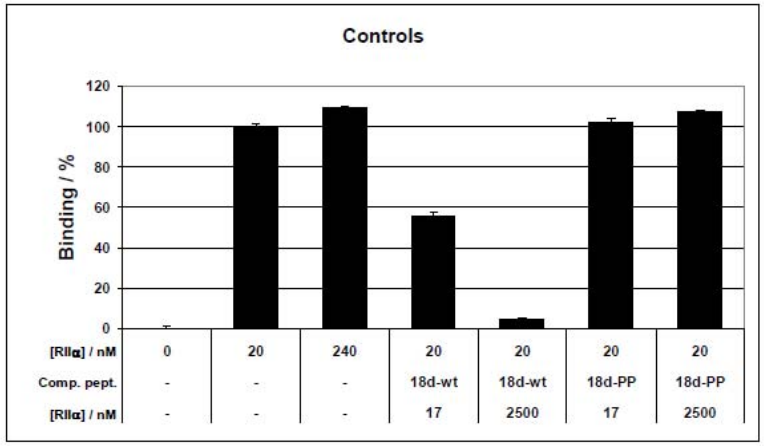


Plate no. 2

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	125	100	103	104	106	104	101	101	101	106	104	98	99	99	94	99	103	103	91	74	91	83	50	91
B	104	106	115	103	104	96	113	108	118	106	106	107	104	100	91	99	109	86	103	77	76	68	52	77
C	105	102	95	109	107	103	110	104	110	93	106	102	105	93	101	100	125	84	92	84	82	94	79	90
D	99	114	99	103	108	109	105	120	OVER	109	89	100	104	104	105	109	91	93	107	86	80	78	76	87
E	102	89	110	95	105	109	OVER	98	82	96	91	103	93	119	102	88	92	87	109	83	86	82	118	79
F	102	98	100	102	100	106	117	103	114	99	92	100	118	105	106	92	97	OVER	87	76	77	85	108	73
G	103	96	95	114	93	95	99	92	96	103	84	89	96	96	99	100	78	86	90	84	87	87	69	52
H	99	101	99	100	95	93	100	97	108	105	85	90	92	104	84	91	91	209	80	96	94	92	72	54
I	98	104	101	113	86	97	88	84	97	OVER	99	97	95	88	103	95	94	88	97	96	88	96	52	73
J	96	101	104	89	103	101	180	98	94	95	99	96	98	96	96	96	93	98	83	90	90	96	53	76
K	97	107	99	105	117	93	118	98	97	96	90	90	98	92	98	85	82	97	97	98	93	93	94	116
L	96	101	104	106	96	96	141	97	101	94	86	97	95	91	94	102	87	97	95	96	92	95	99	111
M	100	102	102	104	104	98	92	95	94	94	99	91	96	96	91	87	94	85	99	91	55	76	96	97
N	93	101	124	102	100	95	201	97	94	92	92	98	96	92	91	87	95	90	94	96	95	97	93	97
O	91	101	101	102	106	74	103	88	104	95	96	94	96	92	89	93	94	94	100	100	85	92	97	53
P	96	96	102	97	101	95	104	105	56	96	99	97	97	97	91	97	98	97	99	95	94	95	99	51

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 52

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	52	1
10 nM RIIα	89	10

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	38
3*Sum of SDs	34.06
3*Sum of SDs/Sum of means	0.24
Z'-factor	**0.76**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	74	49	52	53	55	53	50	50	50	55	53	47	48	48	43	48	52	52	40	23	40	32	-2	40
B	53	55	64	52	53	45	62	57	67	55	55	56	53	49	40	48	58	35	52	26	25	17	1	26
C	54	51	44	58	56	52	59	53	59	42	55	51	54	42	50	49	74	33	41	33	31	43	28	39
D	48	63	48	52	57	58	54	69	####	58	38	49	53	53	54	58	40	42	56	35	29	27	25	36
E	51	38	59	44	54	58	####	47	31	45	40	52	42	68	51	37	41	36	58	32	35	31	67	28
F	51	47	49	51	49	55	66	52	63	48	41	49	67	54	55	41	46	####	36	25	26	34	57	22
G	52	45	44	63	42	44	48	41	45	52	33	38	45	45	48	49	27	35	39	33	36	36	18	1
H	48	50	48	49	44	42	49	46	57	54	34	39	41	53	33	40	40	158	29	45	43	41	21	3
I	47	53	50	62	35	46	37	33	46	####	48	46	44	37	52	44	43	37	46	45	37	45	1	22
J	45	50	53	38	52	50	129	47	43	44	48	45	47	45	45	45	42	47	32	39	39	45	2	25
K	46	56	48	54	66	42	67	47	46	45	39	39	47	41	47	34	31	46	46	47	42	42	43	65
L	45	50	53	55	45	45	90	46	50	43	35	46	44	40	43	51	36	46	44	45	41	44	48	60
M	49	51	51	53	53	47	41	44	43	43	48	40	45	45	40	36	43	34	48	40	4	25	45	46
N	42	50	73	51	49	44	150	46	43	41	41	47	45	41	40	36	44	39	43	45	44	46	42	46
O	40	50	50	51	55	23	52	37	53	44	45	43	45	41	38	42	43	43	49	49	34	41	46	2
P	45	45	51	46	50	44	53	54	5	45	48	46	46	46	40	46	47	46	48	44	43	44	48	-1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 38

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-4	73	177	47	1	113	118
	1	65	150	54	4	126	110
	4	121	158	57	1	73	102
	-1	121	171	65	7	57	94
		121					
		126					
		105					
		68					
Mean	0	100	164	56	3	92	106
SD	3	27	12	8	3	33	10
SEM	2	9	6	4	1	16	5

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	166	129	137	140	143	140	132	132	132	146	140	124	126	126	113	126	137	137	105	60	105	84	-4	105
B	140	145	169	137	140	118	163	150	177	145	145	148	140	129	105	126	153	92	137	68	65	44	1	68
C	142	134	116	153	148	137	155	140	155	110	145	134	142	110	132	129	195	86	108	86	81	113	73	102
D	126	166	126	137	150	153	142	182	####	153	100	129	140	140	142	153	105	110	148	92	76	70	65	94
E	134	100	155	116	142	153	####	124	81	118	105	137	110	179	134	97	108	94	153	84	92	81	176	73
F	134	124	129	134	129	145	174	137	166	126	108	129	176	142	145	108	121	####	94	65	68	89	150	57
G	137	118	116	166	110	116	126	108	118	137	86	100	118	118	126	129	70	92	102	86	94	94	47	1
H	126	132	126	129	116	110	129	121	150	142	89	102	108	140	86	105	105	416	76	118	113	108	54	7
I	124	140	132	163	92	121	97	86	121	####	126	121	116	97	137	116	113	97	121	118	97	118	1	57
J	118	132	140	100	137	132	340	124	113	116	126	118	124	118	118	118	110	124	84	102	102	118	4	65
K	121	148	126	142	174	110	177	124	121	118	102	102	124	108	124	89	81	121	121	124	110	110	113	171
L	118	132	140	145	118	118	239	121	132	113	92	121	116	105	113	134	94	121	116	118	108	116	126	158
M	129	134	134	140	140	124	108	116	113	113	126	105	118	118	105	94	113	89	126	105	9	65	118	121
N	110	132	193	134	129	116	397	121	113	108	108	124	118	108	105	94	116	102	113	118	116	121	110	121
O	105	132	132	134	145	60	137	97	140	116	118	113	118	108	100	110	113	113	129	129	89	108	121	4
P	118	118	134	121	132	116	140	142	12	118	126	121	121	121	105	121	124	121	126	116	113	116	126	-1

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

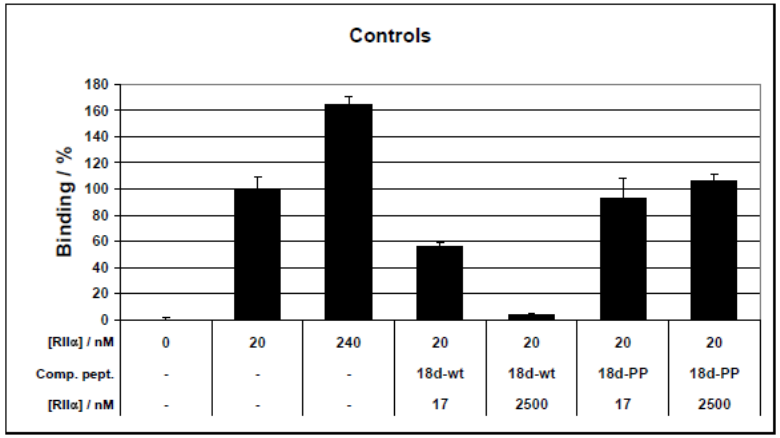


Plate no. 3

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	104	106	103	102	104	98	102	103	97	105	108	105	105	103	107	106	104	106	106	104	101	104	50	103
B	106	105	108	102	102	104	105	100	101	108	107	110	104	104	106	108	118	105	106	94	102	105	42	101
C	106	113	104	104	105	106	106	106	103	106	104	106	106	106	101	105	120	103	105	105	99	90	103	101
D	106	107	103	106	105	105	109	106	107	106	108	101	104	109	103	103	108	100	98	105	101	108	99	108
E	107	106	107	60	109	105	107	105	105	106	108	106	107	96	99	107	104	103	101	98	102	100	102	97
F	107	90	107	101	114	157	117	109	103	108	119	108	109	107	104	105	103	98	106	106	103	101	111	107
G	105	105	108	106	106	103	102	101	106	96	104	102	95	100	99	102	105	101	104	100	104	91	79	53
H	98	107	107	105	103	106	112	104	106	98	105	106	100	91	97	97	102	99	97	104	104	96	81	52
I	106	OVER	108	107	105	105	100	105	105	104	100	93	104	105	110	105	84	97	100	106	95	104	51	74
J	99	119	104	106	102	103	107	104	104	106	99	101	100	92	94	105	102	99	103	103	94	105	51	74
K	108	111	110	106	101	109	108	104	104	101	104	104	105	103	103	102	112	107	105	100	98	109	95	108
L	100	102	102	104	104	111	106	103	97	97	101	107	107	104	121	99	98	100	103	99	103	102	98	110
M	102	101	102	107	106	107	105	102	104	103	104	97	102	102	106	99	106	102	101	91	55	106	94	100
N	101	104	105	109	105	103	103	107	163	102	105	99	103	104	131	92	104	100	97	97	93	103	106	103
O	102	106	103	108	106	104	104	103	105	105	98	102	103	103	102	100	101	101	99	99	100	100	101	53
P	103	105	104	103	105	104	101	104	69	101	104	100	101	102	103	104	103	99	99	101	101	94	102	51

Mean of background wells (0 nM RIIb; A23,B23,O24,P24) = 49

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	49	5
10 nM RIIα	102	2

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	53
3*Sum of SDs	19.03
3*Sum of SDs/Sum of means	0.13
Z'-factor	**0.87**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	55	57	54	53	55	49	53	54	48	56	59	56	56	54	58	57	55	57	57	55	52	55	1	54
B	57	56	59	53	53	55	56	51	52	59	58	61	55	55	57	59	69	56	57	45	53	56	-7	52
C	57	64	55	55	56	57	57	57	54	57	55	57	57	57	52	56	71	54	56	56	50	41	54	52
D	57	58	54	57	56	56	60	57	58	57	59	52	55	60	54	54	59	51	49	56	52	59	50	59
E	58	57	58	11	60	56	58	56	56	57	59	57	58	47	50	58	55	54	52	49	53	51	53	48
F	58	41	58	52	65	108	68	60	54	59	70	59	60	58	55	56	54	49	57	57	54	52	62	58
G	56	56	59	57	57	54	53	52	57	47	55	53	46	51	50	53	56	52	55	51	55	42	30	4
H	49	58	58	56	54	57	63	55	57	49	56	57	51	42	48	48	53	50	48	55	55	47	32	3
I	57	####	59	58	56	56	51	56	56	55	51	44	55	56	61	56	35	48	51	57	46	55	2	25
J	50	70	55	57	53	54	58	55	55	57	50	52	51	43	45	56	53	50	54	54	45	56	2	25
K	59	62	61	57	52	60	59	55	55	52	55	55	56	54	54	53	63	58	56	51	49	60	46	59
L	51	53	53	55	55	62	57	54	48	48	52	58	58	55	72	50	49	51	54	50	54	53	49	61
M	53	52	53	58	57	58	56	53	55	54	55	48	53	53	57	50	57	53	52	42	6	57	45	51
N	52	55	56	60	56	54	54	58	114	53	56	50	54	55	82	43	55	51	48	48	44	54	57	54
O	53	57	54	59	57	55	55	54	56	56	49	53	54	54	53	51	52	52	50	50	51	51	52	4
P	54	56	55	54	56	55	52	55	20	52	55	51	52	53	54	55	54	50	50	52	52	45	53	2

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 53

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	2	103	101	57	4	88	86
	-13	95	118	61	4	93	109
	8	97	116	48	8	91	99
	4	103	112	48	6	110	112
		99					
		101					
		103					
		99					
Mean	0	100	112	53	5	96	101
SD	9	3	8	7	2	10	12
SEM	5	1	4	3	1	5	6

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	105	109	103	101	105	93	101	103	91	107	112	107	107	103	110	109	105	109	109	105	99	105	2	103
B	109	107	112	101	101	105	107	97	99	112	110	116	105	105	109	112	131	107	109	86	101	107	-13	99
C	109	122	105	105	107	109	109	109	103	109	105	109	109	109	99	107	135	103	107	107	95	78	103	99
D	109	110	103	109	107	107	114	109	110	109	112	99	105	114	103	103	112	97	93	107	99	112	95	112
E	110	109	110	21	114	107	110	107	107	109	112	109	110	90	95	110	105	103	99	93	101	97	101	91
F	110	78	110	99	124	208	130	114	103	112	133	112	114	110	105	107	103	93	109	109	103	99	112	110
G	107	107	112	109	109	103	101	99	109	90	105	101	88	97	95	101	107	99	105	97	105	80	57	8
H	93	110	110	107	103	109	120	105	109	93	107	109	97	80	91	91	101	95	91	105	105	90	61	6
I	109	####	112	110	107	107	97	107	107	105	97	84	105	107	116	107	67	91	97	109	88	105	4	48
J	95	133	105	109	101	103	110	105	105	109	95	99	97	82	86	107	101	95	103	103	86	107	4	48
K	112	118	116	109	99	114	112	105	105	99	105	105	107	103	103	101	120	110	107	97	93	114	88	112
L	97	101	101	105	105	118	109	103	91	91	99	110	110	105	137	95	93	97	103	95	103	101	93	116
M	101	99	101	110	109	110	107	101	105	103	105	91	101	101	109	95	109	101	99	80	11	109	86	97
N	99	105	107	114	107	103	103	110	217	101	107	95	103	105	158	82	105	97	91	91	84	103	109	103
O	101	109	103	112	109	105	105	103	107	107	93	101	103	103	101	97	99	99	95	95	97	97	99	8
P	103	107	105	103	107	105	99	105	38	99	105	97	99	101	103	105	103	95	95	99	99	86	101	4

Range of Binding / %																	
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

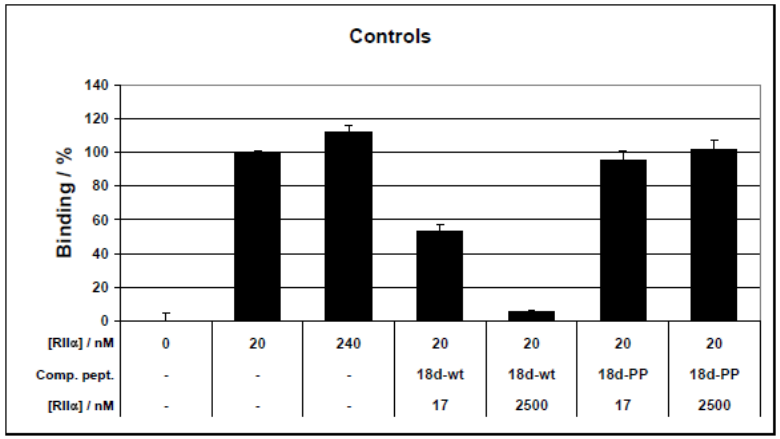


Plate no. 4

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	103	99	106	105	103	101	103	105	107	105	106	102	101	103	105	105	101	103	106	102	103	80	50	98
B	106	105	108	107	106	108	106	103	105	104	106	107	105	106	107	105	105	107	104	105	105	103	51	104
C	103	104	104	105	105	105	OVER	110	104	107	104	162	105	106	101	105	118	105	108	104	102	102	107	103
D	103	106	107	107	117	106	118	108	105	105	102	104	105	102	104	108	104	108	105	105	124	115	108	108
E	106	108	105	107	105	108	105	111	103	103	106	201	115	106	105	105	104	101	103	107	103	105	110	108
F	106	104	105	107	106	106	111	110	104	106	105	106	104	120	107	105	103	107	104	105	116	109	109	105
G	106	104	108	104	104	105	103	105	106	106	103	OVER	106	104	104	106	111	105	108	103	102	104	78	51
H	105	106	109	103	114	106	142	135	102	101	102	105	102	106	103	102	166	104	169	114	105	104	79	50
I	104	104	108	103	105	106	104	105	101	105	105	OVER	105	108	103	105	121	103	104	106	104	106	53	70
J	104	107	108	105	105	103	98	105	102	104	100	104	102	105	104	103	104	102	210	105	108	108	52	78
K	102	106	105	102	106	106	104	102	101	106	106	244	104	101	102	105	120	108	111	106	105	103	105	107
L	105	108	108	108	107	105	104	103	106	104	105	104	106	106	99	103	105	103	146	104	115	106	104	111
M	103	106	105	105	103	104	106	106	102	197	103	187	106	106	106	104	107	107	106	108	67	104	106	103
N	103	107	102	102	106	104	104	107	113	105	104	104	102	104	101	104	102	105	140	105	118	103	104	103
O	104	110	104	107	104	104	104	105	102	135	103	145	102	102	110	105	106	107	106	105	101	105	106	53
P	98	103	OVER	106	107	106	105	105	106	106	104	103	103	103	103	105	105	103	160	107	108	102	95	52

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 52

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	52	1
10 nM RIIα	103	4

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	52
3*Sum of SDs	17.29
3*Sum of SDs/Sum of means	0.11
Z'-factor	**0.89**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	52	48	55	54	52	50	52	54	56	54	55	51	50	52	54	54	50	52	55	51	52	29	-2	47
B	55	54	57	56	55	57	55	52	54	53	55	56	54	55	56	54	54	56	53	54	54	52	-1	53
C	52	53	53	54	54	54	####	59	53	56	53	111	54	55	50	54	67	54	57	53	51	51	56	52
D	52	55	56	56	66	55	67	57	54	54	51	53	54	51	53	57	53	57	54	54	73	64	57	57
E	55	57	54	56	54	57	54	60	52	52	55	150	64	55	54	54	53	50	52	56	52	54	59	57
F	55	53	54	56	55	55	60	59	53	55	54	55	53	69	56	54	52	56	53	54	65	58	58	54
G	55	53	57	53	53	54	52	54	55	55	52	####	55	53	53	55	60	54	57	52	51	53	27	-1
H	54	55	58	52	63	55	91	84	51	50	51	54	51	55	52	51	115	53	118	63	54	53	28	-2
I	53	53	57	52	54	55	53	54	50	54	54	####	54	57	52	54	70	52	53	55	53	55	2	19
J	53	56	57	54	54	52	47	54	51	53	49	53	51	54	53	52	53	51	159	54	57	57	1	27
K	51	55	54	51	55	55	53	51	50	55	55	193	53	50	51	54	69	57	60	55	54	52	54	56
L	54	57	57	57	56	54	53	52	55	53	54	53	55	55	48	52	54	52	95	53	64	55	53	60
M	52	55	54	54	52	53	55	55	51	146	52	136	55	55	55	53	56	56	55	57	16	53	55	52
N	52	56	51	51	55	53	53	56	62	54	53	53	51	53	50	53	51	54	89	54	67	52	53	52
O	53	59	53	56	53	53	53	54	51	84	52	94	51	51	59	54	55	56	55	54	50	54	55	2
P	47	52	####	55	56	55	54	54	55	55	53	52	52	52	52	54	54	52	109	56	57	51	44	1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 52

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-3	108	114	51	3	104	106
	-1	110	112	53	1	102	102
	3	100	116	36	-1	110	100
	1	100	108	51	-3	104	110
		106					
		84					
		90					
		102					
Mean	0	100	112	48	0	105	104
SD	3	9	3	8	3	3	4
SEM	1	3	2	4	1	2	2

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	100	92	106	104	100	96	100	104	108	104	106	98	96	100	104	104	96	100	106	98	100	55	-3	90
B	106	104	110	108	106	110	106	100	104	102	106	108	104	106	108	104	104	108	102	104	104	100	-1	102
C	100	102	102	104	104	104	####	114	102	108	102	215	104	106	96	104	129	104	110	102	98	98	108	100
D	100	106	108	108	127	106	129	110	104	104	98	102	104	98	102	110	102	110	104	104	141	123	110	110
E	106	110	104	108	104	110	104	116	100	100	106	293	123	106	104	104	102	96	100	108	100	104	114	110
F	106	102	104	108	106	106	116	114	102	106	104	106	102	133	108	104	100	108	102	104	125	112	112	104
G	106	102	110	102	102	104	100	104	106	106	100	####	106	102	102	106	116	104	110	100	98	102	51	-1
H	104	106	112	100	121	106	176	162	98	96	98	104	98	106	100	98	222	102	228	121	104	102	53	-3
I	102	102	110	100	104	106	102	104	96	104	104	####	104	110	100	104	135	100	102	106	102	106	3	36
J	102	108	110	104	104	100	90	104	98	102	94	102	98	104	102	100	102	98	305	104	110	110	1	51
K	98	106	104	98	106	106	102	98	96	106	106	374	102	96	98	104	133	110	116	106	104	100	104	108
L	104	110	110	110	108	104	102	100	106	102	104	102	106	106	92	100	104	100	183	102	123	106	102	116
M	100	106	104	104	100	102	106	106	98	288	100	263	106	106	106	102	108	108	106	110	30	102	106	100
N	100	108	98	98	106	102	102	108	119	104	102	102	98	102	96	102	98	104	172	104	129	100	102	100
O	102	114	102	108	102	102	102	104	98	162	100	182	98	98	114	104	106	108	106	104	96	104	106	3
P	90	100	####	106	108	106	104	104	106	106	102	100	100	100	100	104	104	100	211	108	110	98	84	-1

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

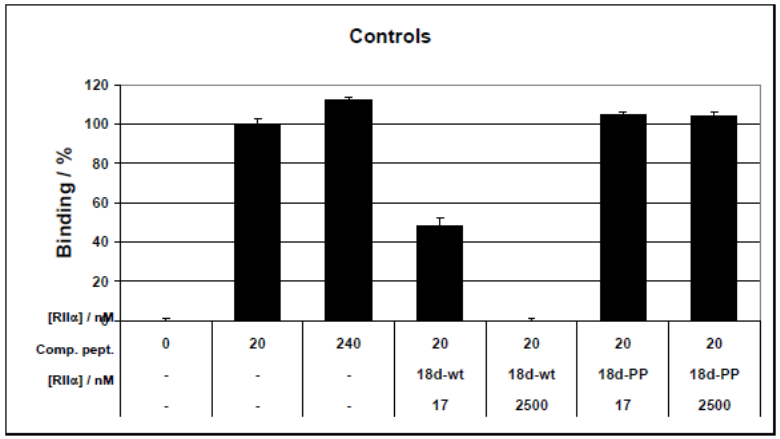


Plate no. 5

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	98	100	102	97	101	101	101	103	101	101	102	100	104	97	99	100	104	113	98	102	99	99	53	101
B	103	99	99	99	102	99	99	102	101	103	102	103	101	101	98	98	99	103	125	100	100	100	52	101
C	102	102	101	104	102	104	102	101	128	106	104	102	102	99	102	103	100	102	103	102	102	102	85	98
D	101	104	100	103	98	100	104	104	104	103	104	103	102	105	104	99	101	104	96	102	98	100	93	103
E	102	98	101	105	97	105	102	102	103	104	102	106	104	102	103	104	103	104	101	102	103	102	69	102
F	98	102	100	103	104	104	99	99	102	99	101	103	100	100	102	104	102	100	102	99	100	99	65	101
G	102	102	105	101	105	104	102	104	106	101	102	105	100	105	101	106	113	102	104	101	99	99	78	56
H	105	95	105	102	100	103	101	103	104	102	102	103	104	102	101	99	102	104	100	103	101	104	76	56
I	113	98	100	102	103	102	102	104	108	104	104	101	108	104	105	103	103	104	102	105	104	104	57	77
J	102	101	102	105	107	99	103	98	105	102	103	102	99	101	116	99	103	103	102	103	104	103	57	79
K	106	102	103	103	100	104	104	102	108	101	106	103	102	103	104	187	103	105	102	102	102	103	103	67
L	100	102	103	105	102	103	104	103	102	102	108	102	103	103	115	103	103	101	103	102	100	102	104	64
M	102	102	103	101	99	101	101	103	104	102	103	103	105	103	104	104	101	104	102	100	120	101	102	91
N	98	102	103	102	100	102	101	100	103	101	104	101	99	100	104	104	103	102	103	98	99	101	103	91
O	97	103	101	102	104	101	104	104	106	102	101	103	103	100	101	102	100	103	98	101	103	98	98	57
P	101	100	101	101	98	97	99	99	103	95	99	99	100	98	100	102	100	97	99	101	100	101	97	55

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 54

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	54	2
10 nM RIIα	95	6

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	40
3*Sum of SDs	23.47
3*Sum of SDs/Sum of means	0.16
Z'-factor	**0.84**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	44	46	48	43	47	47	47	49	47	47	48	46	50	43	45	46	50	59	44	48	45	45	-1	47
B	49	45	45	45	48	45	45	48	47	49	48	49	47	47	44	44	45	49	71	46	46	46	-2	47
C	48	48	47	50	48	50	48	47	74	52	50	48	48	45	48	49	46	48	49	48	48	48	31	44
D	47	50	46	49	44	46	50	50	50	49	50	49	48	51	50	45	47	50	42	48	44	46	39	49
E	48	44	47	51	43	51	48	48	49	50	48	52	50	48	49	50	49	50	47	48	49	48	15	48
F	44	48	46	49	50	50	45	45	48	45	47	49	46	46	48	50	48	46	48	45	46	45	11	47
G	48	48	51	47	51	50	48	50	52	47	48	51	46	51	47	52	59	48	50	47	45	45	24	2
H	51	41	51	48	46	49	47	49	50	48	48	49	50	48	47	45	48	50	46	49	47	50	22	2
I	59	44	46	48	49	48	48	50	54	50	50	47	54	50	51	49	49	50	48	51	50	50	3	23
J	48	47	48	51	53	45	49	44	51	48	49	48	45	47	62	45	49	49	48	49	50	49	3	25
K	52	48	49	49	46	50	50	48	54	47	52	49	48	49	50	133	49	51	48	48	48	49	49	13
L	46	48	49	51	48	49	50	49	48	48	54	48	49	49	61	49	49	47	49	48	46	48	50	10
M	48	48	49	47	45	47	47	49	50	48	49	49	51	49	50	50	47	50	48	46	66	47	48	37
N	44	48	49	48	46	48	47	46	49	47	50	47	45	46	50	50	49	48	49	44	45	47	49	37
O	43	49	47	48	50	47	50	50	52	48	47	49	49	46	47	48	46	49	44	47	49	44	44	3
P	47	46	47	47	44	43	45	45	49	41	45	45	46	44	46	48	46	43	45	47	46	47	43	1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 40

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-3	76	37	59	7	121	118
	-6	96	27	54	7	123	121
	7	91	24	56	4	118	108
	2	91	32	61	4	116	121
		108					
		106					
		116					
		116					
Mean	0	100	30	58	6	120	117
SD	5	14	5	3	1	3	6
SEM	3	5	3	2	1	2	3

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	108	113	118	106	116	116	116	121	116	116	118	113	123	106	111	113	123	146	108	118	111	111	-3	116
B	121	111	111	111	118	111	111	118	116	121	118	121	116	116	108	108	111	121	175	113	113	113	-6	116
C	118	118	116	123	118	123	118	116	183	128	123	118	118	111	118	121	113	118	121	118	118	118	76	108
D	116	123	113	121	108	113	123	123	123	121	123	121	118	126	123	111	116	123	103	118	108	113	96	121
E	118	108	116	126	106	126	118	118	121	123	118	128	123	118	121	123	121	123	116	118	121	118	37	118
F	108	118	113	121	123	123	111	111	118	111	116	121	113	113	118	123	118	113	118	111	113	111	27	116
G	118	118	126	116	126	123	118	123	128	116	118	126	113	126	116	128	146	118	123	116	111	111	59	4
H	126	101	126	118	113	121	116	121	123	118	118	121	123	118	116	111	118	123	113	121	116	123	54	4
I	146	108	113	118	121	118	118	123	133	123	123	116	133	123	126	121	121	123	118	126	123	123	7	56
J	118	116	118	126	131	111	121	108	126	118	121	118	111	118	153	111	121	121	118	121	123	121	7	61
K	128	118	121	121	113	123	123	118	133	116	128	121	118	121	123	236	121	126	118	118	118	121	121	32
L	113	118	121	126	118	121	123	121	118	118	133	118	121	121	153	121	121	116	121	118	113	118	123	24
M	118	118	121	116	111	116	116	121	123	118	121	121	126	121	123	123	116	123	118	113	183	116	118	91
N	108	118	121	118	113	118	116	113	121	116	123	116	111	113	123	123	121	118	121	108	111	116	121	91
O	106	121	116	118	123	116	123	123	128	118	116	121	121	113	116	118	113	121	108	116	121	108	108	7
P	116	113	116	116	108	106	111	111	121	101	111	111	113	108	113	118	113	106	111	116	113	116	106	2

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

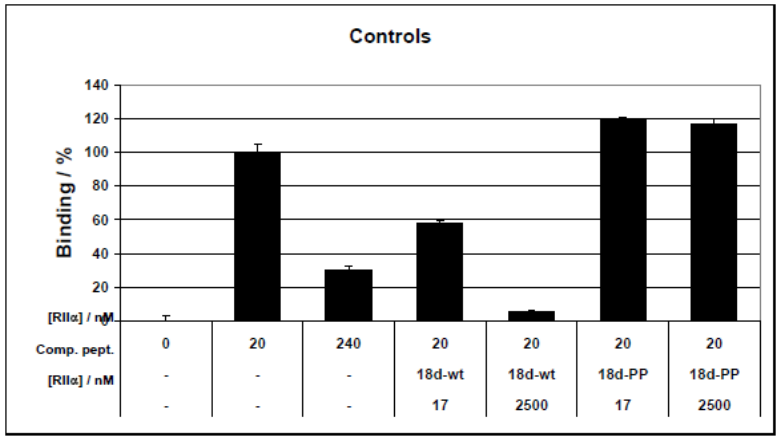


Plate no. 6

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	101	102	105	102	102	103	105	105	106	105	104	104	101	106	106	107	106	107	103	104	103	103	51	101
B	105	100	104	102	104	104	105	105	105	106	104	104	106	104	102	104	104	107	104	107	106	104	50	104
C	106	104	102	106	102	104	102	105	105	108	110	106	108	106	104	106	111	106	109	104	106	103	107	104
D	106	103	105	103	105	104	103	102	101	95	105	104	103	106	106	108	107	107	104	106	105	108	106	107
E	104	107	107	103	103	106	105	107	105	105	106	105	105	116	102	102	102	106	106	105	107	106	109	106
F	108	107	102	106	103	104	97	106	105	105	107	107	103	105	103	105	107	117	105	106	105	104	107	100
G	106	106	105	101	105	102	105	106	104	101	98	101	106	107	103	102	107	95	107	106	109	108	77	52
H	105	105	132	107	100	104	102	105	102	106	97	107	100	106	105	121	98	151	96	90	107	108	84	53
I	103	111	98	106	105	106	104	102	97	106	106	97	100	104	105	122	113	108	99	107	99	106	54	82
J	104	101	105	101	105	105	106	107	91	105	104	105	105	105	110	139	102	109	112	105	99	105	53	81
K	102	109	98	106	104	107	103	102	106	103	99	105	105	102	101	101	102	101	109	108	94	98	99	109
L	106	104	106	104	106	106	104	103	101	98	102	113	102	99	98	104	102	105	108	106	103	108	101	107
M	102	106	102	104	OVER	106	96	105	99	106	104	161	105	106	99	101	102	101	102	105	56	99	108	104
N	106	107	100	107	106	99	104	90	98	104	100	103	98	106	107	99	110	129	102	102	105	103	103	107
O	105	105	102	101	106	104	107	95	100	94	106	105	105	104	105	108	103	108	104	103	107	108	100	53
P	104	101	102	104	104	102	104	103	107	110	101	107	103	106	106	103	100	103	102	106	106	109	103	50

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 51

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	51	1
10 nM RIIα	104	3

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	53
3*Sum of SDs	12.10
3*Sum of SDs/Sum of means	0.08
Z'-factor	**0.92**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	50	51	54	51	51	52	54	54	55	54	53	53	50	55	55	56	55	56	52	53	52	52	0	50
B	54	49	53	51	53	53	54	54	54	55	53	53	55	53	51	53	53	56	53	56	55	53	-1	53
C	55	53	51	55	51	53	51	54	54	57	59	55	57	55	53	55	60	55	58	53	55	52	56	53
D	55	52	54	52	54	53	52	51	50	44	54	53	52	55	55	57	56	56	53	55	54	57	55	56
E	53	56	56	52	52	55	54	56	54	54	55	54	54	65	51	51	51	55	55	54	56	55	58	55
F	57	56	51	55	52	53	46	55	54	54	56	56	52	54	52	54	56	66	54	55	54	53	56	49
G	55	55	54	50	54	51	54	55	53	50	47	50	55	56	52	51	56	44	56	55	58	57	26	1
H	54	54	81	56	49	53	51	54	51	55	46	56	49	55	54	70	47	100	45	39	56	57	33	2
I	52	60	47	55	54	55	53	51	46	55	55	46	49	53	54	71	62	57	48	56	48	55	3	31
J	53	50	54	50	54	54	55	56	40	54	53	54	54	54	59	88	51	58	61	54	48	54	2	30
K	51	58	47	55	53	56	52	51	55	52	48	54	54	51	50	50	51	50	58	57	43	47	48	58
L	55	53	55	53	55	55	53	52	50	47	51	62	51	48	47	53	51	54	57	55	52	57	50	56
M	51	55	51	53	#####	55	45	54	48	55	53	110	54	55	48	50	51	50	51	54	5	48	57	53
N	55	56	49	56	55	48	53	39	47	53	49	52	47	55	56	48	59	78	51	51	54	52	52	56
O	54	54	51	50	55	53	56	44	49	43	55	54	54	53	54	57	52	57	53	52	56	57	49	2
P	53	50	51	53	53	51	53	52	56	59	50	56	52	55	55	52	49	52	51	55	55	58	52	-1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 53

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	0	106	109	49	6	91	108
	-2	104	106	62	4	94	98
	4	100	106	58	2	104	100
	-2	106	109	57	4	92	106
		92					
		98					
		94					
		100					
Mean	0	100	108	57	4	95	103
SD	3	5	2	6	2	6	4
SEM	1	2	1	3	1	3	2

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	94	96	102	96	96	98	102	102	104	102	100	100	94	104	104	106	104	106	98	100	98	98	0	94
B	102	92	100	96	100	100	102	102	102	104	100	100	104	100	96	100	100	106	100	106	104	100	-2	100
C	104	100	96	104	96	100	96	102	102	108	111	104	108	104	100	104	113	104	109	100	104	98	106	100
D	104	98	102	98	102	100	98	96	94	83	102	100	98	104	104	108	106	106	100	104	102	108	104	106
E	100	106	106	98	98	104	102	106	102	102	104	102	102	123	96	96	96	104	104	102	106	104	108	104
F	108	106	96	104	98	100	87	104	102	102	106	106	98	102	98	102	106	125	102	104	102	100	106	92
G	104	104	102	94	102	96	102	104	100	94	89	94	104	106	98	96	106	83	106	104	109	108	49	2
H	102	102	153	106	92	100	96	102	96	104	87	106	92	104	102	132	89	189	85	74	106	108	62	4
I	98	113	89	104	102	104	100	96	87	104	104	87	92	100	102	134	117	108	91	106	91	104	6	58
J	100	94	102	94	102	102	104	106	75	102	100	102	102	102	111	166	96	109	115	102	91	102	4	57
K	96	109	89	104	100	106	98	96	104	98	91	102	102	96	94	94	96	94	109	108	81	89	91	109
L	104	100	104	100	104	104	100	98	94	89	96	117	96	91	89	100	96	102	108	104	98	108	94	106
M	96	104	96	100	#####	104	85	102	91	104	100	208	102	104	91	94	96	94	96	102	9	91	108	100
N	104	106	92	106	104	91	100	74	89	100	92	98	89	104	106	91	111	147	96	96	102	98	98	106
O	102	102	96	94	104	100	106	83	92	81	104	102	102	100	102	108	98	108	100	98	106	108	92	4
P	100	94	96	100	100	96	100	98	106	111	94	106	98	104	104	98	92	98	96	104	104	109	98	-2

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

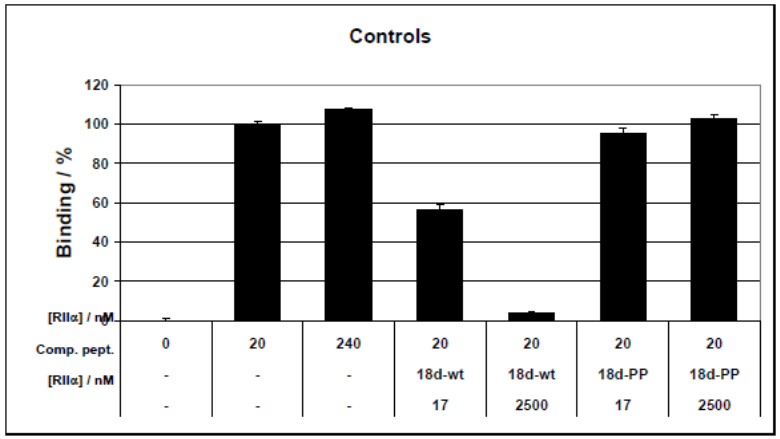


Plate no. 7

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	103	104	105	109	103	103	104	107	103	111	105	100	105	105	101	102	105	106	105	106	103	104	49	103
B	104	101	105	105	103	110	103	109	106	105	105	106	107	107	103	104	104	106	104	105	103	102	51	102
C	104	102	108	105	105	105	107	106	106	106	109	103	105	104	103	102	117	106	105	103	107	103	106	106
D	103	105	104	116	104	184	105	104	111	106	105	105	103	104	107	107	104	105	104	104	107	104	106	107
E	104	105	104	105	106	105	99	105	141	105	123	105	104	104	100	106	102	103	105	101	105	105	110	103
F	103	103	104	103	103	106	105	104	107	104	103	102	102	104	104	104	105	102	104	108	105	103	108	102
G	103	107	107	106	105	102	105	106	124	104	120	107	106	106	103	107	106	102	106	105	104	106	79	49
H	104	105	103	105	105	103	105	104	103	106	103	103	105	104	105	103	108	102	106	104	104	106	80	54
I	104	109	105	108	96	99	105	103	105	104	103	104	103	104	106	104	104	101	106	106	107	103	52	79
J	105	131	104	106	102	113	104	105	106	105	106	101	101	103	103	103	103	109	107	103	106	107	52	83
K	103	105	105	104	104	102	106	104	103	100	105	106	104	98	100	102	105	104	104	111	105	102	102	107
L	103	105	108	145	103	106	108	101	104	110	103	105	102	104	107	104	104	106	105	103	106	106	101	108
M	103	106	106	103	101	106	103	99	102	106	105	107	102	104	104	105	106	105	105	107	111	105	106	104
N	104	118	102	108	102	106	101	100	101	103	100	101	103	101	102	103	109	101	102	100	103	105	103	105
O	106	103	103	103	99	105	104	98	106	127	125	105	103	93	104	104	107	107	105	104	108	105	102	52
P	101	100	107	107	106	106	103	105	105	110	104	105	100	105	105	105	100	99	104	104	104	106	102	51

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 51

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	51	1
10 nM RIIα	104	2

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	53
3*Sum of SDs	9.03
3*Sum of SDs/Sum of means	0.06
Z'-factor	**0.94**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	52	53	54	58	52	52	53	56	52	60	54	49	54	54	50	51	54	55	54	55	52	53	-2	52
B	53	50	54	54	52	59	52	58	55	54	54	55	56	56	52	53	53	55	53	54	52	51	0	51
C	53	51	57	54	54	54	56	55	55	55	58	52	54	53	52	51	66	55	54	52	56	52	55	55
D	52	54	53	65	53	133	54	53	60	55	54	54	52	53	56	56	53	54	53	53	56	53	55	56
E	53	54	53	54	55	54	48	54	90	54	72	54	53	53	49	55	51	52	54	50	54	54	59	52
F	52	52	53	52	52	55	54	53	56	53	52	51	51	53	53	53	54	51	53	57	54	52	57	51
G	52	56	56	55	54	51	54	55	73	53	69	56	55	55	52	56	55	51	55	54	53	55	28	-2
H	53	54	52	54	54	52	54	53	52	55	52	52	54	53	54	52	57	51	55	53	53	55	29	3
I	53	58	54	57	45	48	54	52	54	53	52	53	52	53	55	53	53	50	55	55	56	52	1	28
J	54	80	53	55	51	62	53	54	55	54	55	50	50	52	52	52	52	58	56	52	55	56	1	32
K	52	54	54	53	53	51	55	53	52	49	54	55	53	47	49	51	54	53	53	60	54	51	51	56
L	52	54	57	94	52	55	57	50	53	59	52	54	51	53	56	53	53	55	54	52	55	55	50	57
M	52	55	55	52	50	55	52	48	51	55	54	56	51	53	53	54	55	54	54	56	60	54	55	53
N	53	67	51	57	51	55	50	49	50	52	49	50	52	50	51	52	58	50	51	49	52	54	52	54
O	55	52	52	52	48	54	53	47	55	76	74	54	52	42	53	53	56	56	54	53	57	54	51	1
P	50	49	56	56	55	55	52	54	54	59	53	54	49	54	54	54	49	48	53	53	53	55	51	0

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 53

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-3	104	112	53	2	97	104
	0	104	108	55	2	95	99
	2	100	108	53	-3	99	104
	0	102	106	61	6	97	106
		97					
		97					
		99					
		97					
Mean	0	100	108	56	2	97	103
SD	2	3	2	4	4	2	3
SEM	1	1	1	2	2	1	2

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	99	100	102	110	99	99	100	106	99	114	102	93	102	102	95	97	102	104	102	104	99	100	-3	99
B	100	95	102	102	99	112	99	110	104	102	102	104	106	106	99	100	100	104	100	102	99	97	0	97
C	100	97	108	102	102	102	106	104	104	104	110	99	102	100	99	97	125	104	102	99	106	99	104	104
D	99	102	100	123	100	251	102	100	114	104	102	102	99	100	106	106	100	102	100	100	106	100	104	106
E	100	102	100	102	104	102	91	102	176	102	136	102	100	100	93	104	97	99	102	95	102	102	112	99
F	99	99	100	99	99	104	102	100	106	100	99	97	97	100	100	100	102	97	100	108	102	99	108	97
G	99	106	106	104	102	97	102	104	138	100	131	106	104	104	99	106	104	97	104	102	100	104	53	-3
H	100	102	99	102	102	99	102	100	99	104	99	99	102	100	102	99	108	97	104	100	100	104	55	6
I	100	110	102	108	85	91	102	99	102	100	99	100	99	100	104	100	100	95	104	104	106	99	2	53
J	102	151	100	104	97	117	100	102	104	102	104	95	95	99	99	99	99	110	106	99	104	106	2	61
K	99	102	102	100	100	97	104	100	99	93	102	104	100	89	93	97	102	100	100	114	102	97	97	106
L	99	102	108	178	99	104	108	95	100	112	99	102	97	100	106	100	100	104	102	99	104	104	95	108
M	99	104	104	99	95	104	99	91	97	104	102	106	97	100	100	102	104	102	102	106	114	102	104	100
N	100	127	97	108	97	104	95	93	95	99	93	95	99	95	97	99	110	95	97	93	99	102	99	102
O	104	99	99	99	91	102	100	89	104	144	140	102	99	80	100	100	106	106	102	100	108	102	97	2
P	95	93	106	106	104	104	99	102	102	112	100	102	93	102	102	102	93	91	100	100	100	104	97	0

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

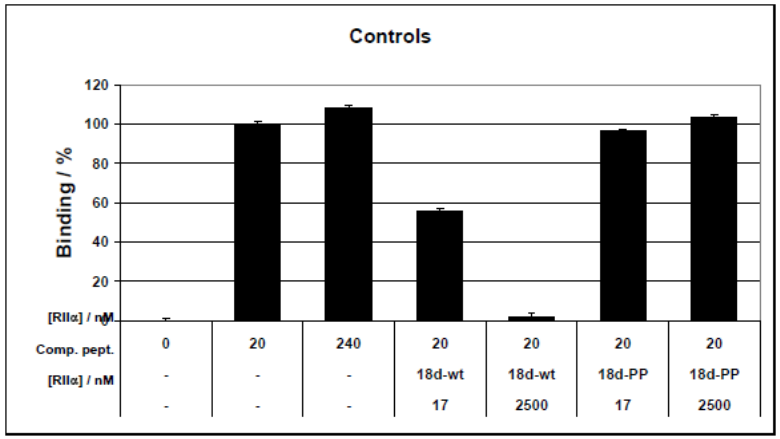


Plate no. 8

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	101	100	103	99	102	96	116	105	102	99	101	104	101	101	103	99	96	107	101	100	99	101	48	101
B	103	105	110	106	105	107	96	108	104	106	104	104	104	104	108	99	107	103	117	105	104	104	49	104
C	101	109	104	69	104	110	107	101	109	101	109	112	107	103	105	103	113	104	108	106	103	105	105	107
D	102	103	104	103	103	107	103	105	105	104	105	105	102	105	106	105	104	104	121	130	108	101	105	104
E	102	107	105	105	101	101	103	102	104	104	106	112	104	103	104	106	99	100	102	102	105	105	106	108
F	104	102	97	101	103	103	102	105	105	95	100	107	102	106	107	99	101	106	102	116	114	100	108	105
G	103	103	104	92	107	104	102	100	105	105	101	110	96	101	104	101	97	95	104	103	104	103	70	51
H	100	99	105	117	102	105	102	101	97	102	103	101	99	102	105	102	101	102	99	136	113	105	68	52
I	102	102	103	106	100	OVER	102	102	102	98	102	103	97	100	120	101	104	96	96	117	103	97	53	79
J	103	100	106	102	103	105	102	103	103	101	100	100	101	103	103	102	111	105	101	133	182	99	52	80
K	102	103	102	102	101	103	104	102	107	103	103	104	99	98	103	102	103	98	105	134	90	95	89	108
L	102	99	98	101	101	103	99	116	101	121	96	92	95	94	93	97	213	89	99	133	102	105	88	107
M	103	102	104	OVER	99	102	102	100	104	96	98	101	95	98	92	99	92	95	104	95	93	97	95	99
N	102	98	101	109	100	99	101	98	104	106	98	106	95	102	95	102	101	97	104	142	101	95	97	104
O	102	97	100	100	142	104	104	100	102	101	102	102	100	102	102	105	104	102	107	149	101	104	96	51
P	98	102	101	149	100	105	100	103	95	103	100	102	101	102	103	105	99	101	108	119	103	105	104	51

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 50

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	50	2
10 nM RIIα	102	3

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	53
3*Sum of SDs	14.35
3*Sum of SDs/Sum of means	0.09
Z'-factor	**0.91**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	51	50	53	49	52	46	66	55	52	49	51	54	51	51	53	49	46	57	51	50	49	51	-2	51
B	53	55	60	56	55	57	46	58	54	56	54	54	54	54	58	49	57	53	67	55	54	54	-1	54
C	51	59	54	19	54	60	57	51	59	51	59	62	57	53	55	53	63	54	58	56	53	55	55	57
D	52	53	54	53	53	57	53	55	55	54	55	55	52	55	56	55	54	54	71	80	58	51	55	54
E	52	57	55	55	51	51	53	52	54	54	56	62	54	53	54	56	49	50	52	52	55	55	56	58
F	54	52	47	51	53	53	52	55	55	45	50	57	52	56	57	49	51	56	52	66	64	50	58	55
G	53	53	54	42	57	54	52	50	55	55	51	60	46	51	54	51	47	45	54	53	54	53	20	1
H	50	49	55	67	52	55	52	51	47	52	53	51	49	52	55	52	51	52	49	86	63	55	18	2
I	52	52	53	56	50	####	52	52	52	48	52	53	47	50	70	51	54	46	46	67	53	47	3	29
J	53	50	56	52	53	55	52	53	53	51	50	50	51	53	53	52	61	55	51	83	132	49	2	30
K	52	53	52	52	51	53	54	52	57	53	53	54	49	48	53	52	53	48	55	84	40	45	39	58
L	52	49	48	51	51	53	49	66	51	71	46	42	45	44	43	47	163	39	49	83	52	55	38	57
M	53	52	54	####	49	52	52	50	54	46	48	51	45	48	42	49	42	45	54	45	43	47	45	49
N	52	48	51	59	50	49	51	48	54	56	48	56	45	52	45	52	51	47	54	92	51	45	47	54
O	52	47	50	50	92	54	54	50	52	51	52	52	50	52	52	55	54	52	57	99	51	54	46	1
P	48	52	51	99	50	55	50	53	45	53	50	52	51	52	53	55	49	51	58	69	53	55	54	1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 53

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-3	105	107	39	6	75	86
	-1	105	111	35	4	73	90
	2	94	109	56	2	111	109
	2	103	111	58	4	105	103
		88					
		103					
		98					
		103					
Mean	0	100	110	47	4	91	97
SD	3	6	2	12	2	20	11
SEM	1	2	1	6	1	10	5

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	98	96	101	94	100	88	126	105	100	94	98	103	98	98	101	94	88	109	98	96	94	98	-3	98
B	101	105	115	107	105	109	88	111	103	107	103	103	103	103	111	94	109	101	128	105	103	103	-1	103
C	98	113	103	37	103	115	109	98	113	98	113	119	109	101	105	101	120	103	111	107	101	105	105	109
D	100	101	103	101	101	109	101	105	105	103	105	105	100	105	107	105	103	103	136	153	111	98	105	103
E	100	109	105	105	98	98	101	100	103	103	107	119	103	101	103	107	94	96	100	100	105	105	107	111
F	103	100	90	98	101	101	100	105	105	86	96	109	100	107	109	94	98	107	100	126	122	96	111	105
G	101	101	103	80	109	103	100	96	105	105	98	115	88	98	103	98	90	86	103	101	103	101	39	2
H	96	94	105	128	100	105	100	98	90	100	101	98	94	100	105	100	98	100	94	164	120	105	35	4
I	100	100	101	107	96	####	100	100	100	92	100	101	90	96	134	98	103	88	88	128	101	90	6	56
J	101	96	107	100	101	105	100	101	101	98	96	96	98	101	101	100	117	105	98	159	252	94	4	58
K	100	101	100	100	98	101	103	100	109	101	101	103	94	92	101	100	101	92	105	160	77	86	75	111
L	100	94	92	98	98	101	94	126	98	136	88	80	86	84	82	90	311	75	94	159	100	105	73	109
M	101	100	103	####	94	100	100	96	103	88	92	98	86	92	80	94	80	86	103	86	82	90	86	94
N	100	92	98	113	96	94	98	92	103	107	92	107	86	100	86	100	98	90	103	76	98	86	90	103
O	100	90	96	96	170	103	103	96	100	98	100	100	96	100	100	105	103	100	109	89	98	103	88	2
P	92	100	98	189	96	105	96	101	86	101	96	100	98	100	101	105	94	98	111	132	101	105	103	2

Range of Binding / %																	
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

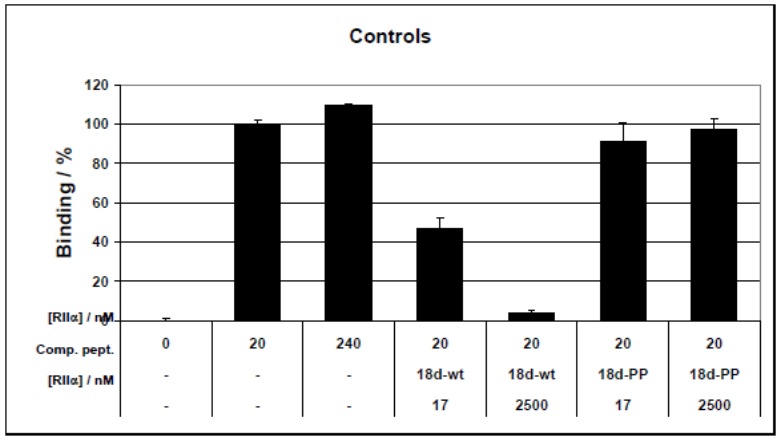


Plate no. 9

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	102	104	105	104	104	106	104	105	105	103	106	104	104	113	108	105	105	105	100	106	105	103	49	104
B	107	106	103	103	102	105	104	105	106	104	105	105	104	103	104	104	106	104	105	103	103	102	52	103
C	105	105	107	105	104	106	104	107	103	106	107	104	108	109	102	105	111	104	102	104	103	105	104	101
D	105	106	109	102	104	108	107	102	107	128	106	110	114	104	104	105	107	103	107	108	104	106	105	98
E	107	103	104	103	105	106	103	105	103	105	102	104	149	107	103	106	119	104	103	103	123	104	107	102
F	108	105	106	105	103	108	106	107	105	104	102	110	105	106	107	211	105	102	105	108	108	105	107	104
G	105	105	104	105	102	106	104	104	103	105	104	104	146	107	103	104	109	104	82	104	103	105	78	51
H	104	106	105	104	107	105	101	109	105	106	96	106	100	107	107	106	102	105	102	102	105	103	80	50
I	108	102	106	105	98	105	102	103	104	104	102	106	164	111	106	106	104	106	101	105	107	103	50	79
J	107	104	105	96	103	106	112	107	100	102	104	103	101	107	105	113	106	107	103	103	104	103	51	80
K	105	105	103	106	99	104	106	106	103	99	166	104	109	196	105	107	103	103	106	103	107	102	104	110
L	104	108	104	104	102	108	103	106	104	101	105	104	105	OVER	117	277	104	103	104	97	105	106	106	106
M	106	106	105	105	105	109	99	105	106	108	104	105	113	114	104	105	106	103	104	OVER	60	106	108	106
N	107	107	105	106	104	105	106	100	104	105	97	105	102	133	104	134	105	105	104	OVER	106	145	107	101
O	103	106	105	105	105	106	103	102	104	99	106	141	111	107	106	105	105	103	104	106	105	106	155	54
P	104	104	106	105	103	103	106	104	107	94	101	106	107	105	104	OVER	110	104	105	104	104	105	103	50

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 51

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	51	2
10 nM RIIα	110	18

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	59
3*Sum of SDs	61.23
3*Sum of SDs/Sum of means	0.38
Z'-factor	**0.62**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	51	53	54	53	53	55	53	54	54	52	55	53	53	62	57	54	54	54	49	55	54	52	-2	53
B	56	55	52	52	51	54	53	54	55	53	54	54	53	52	53	53	55	53	54	52	52	51	1	52
C	54	54	56	54	53	55	53	56	52	55	56	53	57	58	51	54	60	53	51	53	52	54	53	50
D	54	55	58	51	53	57	56	51	56	77	55	59	63	53	53	54	56	52	56	57	53	55	54	47
E	56	52	53	52	54	55	52	54	52	54	51	53	98	56	52	55	68	53	52	52	72	53	56	51
F	57	54	55	54	52	57	55	56	54	53	51	59	54	55	56	160	54	51	54	57	57	54	56	53
G	54	54	53	54	51	55	53	53	52	54	53	53	95	56	52	53	58	53	31	53	52	54	27	0
H	53	55	54	53	56	54	50	58	54	55	45	55	49	56	56	55	51	54	51	51	54	52	29	-1
I	57	51	55	54	47	54	51	52	53	53	51	55	113	60	55	55	53	55	50	54	56	52	-1	28
J	56	53	54	45	52	55	61	56	49	51	53	52	50	56	54	62	55	56	52	52	53	52	0	29
K	54	54	52	55	48	53	55	55	52	48	115	53	58	145	54	56	52	52	55	52	56	51	53	59
L	53	57	53	53	51	57	52	55	53	50	54	53	54	###	66	226	53	52	53	46	54	55	55	55
M	55	55	54	54	54	58	48	54	55	57	53	54	62	63	53	54	55	52	53	###	9	55	57	55
N	56	56	54	55	53	54	55	49	53	54	46	54	51	82	53	83	54	54	53	###	55	94	56	50
O	52	55	54	54	54	55	52	51	53	48	55	90	60	56	55	54	54	52	53	55	54	55	104	3
P	53	53	55	54	52	52	55	53	56	43	50	55	56	54	53	###	59	53	54	53	53	54	52	-1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 59

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-4	90	95	45	-2	90	96
	1	91	95	49	0	93	95
	5	93	93	47	0	86	85
	-2	85	100	49	-2	90	79
		176					
		88					
		90					
		88					
Mean	0	100	96	48	-1	90	89
SD	4	31	3	2	1	3	8
SEM	2	11	1	1	0	1	4

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	86	90	91	90	90	93	90	91	91	88	93	90	90	105	96	91	91	91	83	93	91	88	-4	90
B	95	93	88	88	86	91	90	91	93	90	91	91	90	88	90	90	93	90	91	88	88	86	1	88
C	91	91	95	91	90	93	90	95	88	93	95	90	96	98	86	91	101	90	86	90	88	91	90	85
D	91	93	98	86	90	96	95	86	95	130	93	100	107	90	90	91	95	88	95	96	90	93	91	79
E	95	88	90	88	91	93	88	91	88	91	86	90	166	95	88	93	115	90	88	88	122	90	95	86
F	96	91	93	91	88	96	93	95	91	90	86	100	91	93	95	271	91	86	91	96	96	91	95	90
G	91	91	90	91	86	93	90	90	88	91	90	90	161	95	88	90	98	90	52	90	88	91	45	0
H	90	93	91	90	95	91	85	98	91	93	76	93	83	95	95	93	86	91	86	86	91	88	49	-2
I	96	86	93	91	79	91	86	88	90	90	86	93	192	101	93	93	90	93	85	91	95	88	-2	47
J	95	90	91	76	88	93	103	95	83	86	90	88	85	95	91	105	93	95	88	88	90	88	0	49
K	91	91	88	93	81	90	93	93	88	81	195	90	98	246	91	95	88	88	93	88	95	86	90	100
L	90	96	90	90	86	96	88	93	90	85	91	90	91	###	112	383	90	88	90	78	91	93	93	93
M	93	93	91	91	91	98	81	91	93	96	90	91	105	107	90	91	93	88	90	###	15	93	96	93
N	95	95	91	93	90	91	93	83	90	91	78	91	86	139	90	141	91	91	90	###	93	158	95	85
O	88	93	91	91	91	93	88	86	90	81	93	152	101	95	93	91	91	88	90	93	91	93	176	5
P	90	90	93	91	88	88	93	90	95	73	85	93	95	91	90	###	100	90	91	90	90	91	88	-2

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

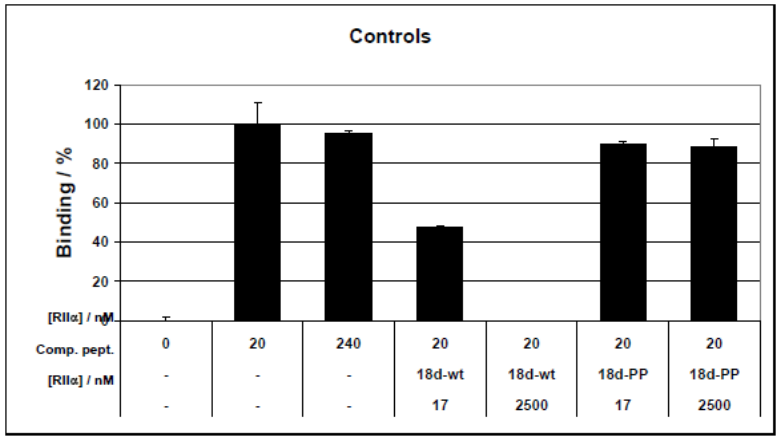


Plate no. 10

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	103	103	105	104	102	105	169	109	106	106	107	106	106	104	104	105	104	109	104	105	104	105	49	103
B	102	107	104	106	104	105	104	105	105	102	108	105	106	102	104	126	106	108	104	105	107	103	50	102
C	103	107	109	104	104	106	105	105	107	102	106	104	104	106	105	107	113	105	105	105	105	104	104	106
D	105	107	111	103	106	106	102	104	106	106	104	103	104	107	104	106	104	104	105	147	106	106	104	103
E	103	107	104	104	103	105	107	105	105	105	106	107	106	106	103	107	104	103	104	104	106	105	108	107
F	104	107	102	103	109	105	105	103	106	103	103	105	103	103	106	105	104	102	104	139	103	112	109	106
G	101	105	103	105	104	98	105	105	105	104	104	103	104	105	102	105	104	105	104	105	103	103	77	52
H	104	105	105	101	105	102	103	104	101	104	101	104	105	104	101	103	106	102	105	120	104	105	81	53
I	104	106	91	106	97	95	103	102	104	104	92	105	99	106	101	105	103	103	102	106	103	107	51	81
J	103	99	106	104	101	104	104	103	103	100	99	104	102	104	101	104	104	106	105	153	101	112	49	82
K	102	107	98	103	102	104	104	105	101	96	104	105	93	103	105	101	114	103	108	105	112	107	102	108
L	106	91	102	101	103	105	105	108	103	104	104	103	102	104	104	102	104	104	107	106	106	109	103	107
M	106	106	91	105	104	106	103	103	106	100	108	105	105	103	106	106	103	104	105	104	106	105	106	105
N	106	105	OVER	104	100	94	99	99	102	105	105	100	104	100	102	105	96	101	103	118	103	119	107	105
O	105	106	105	100	105	103	103	102	103	104	103	102	103	103	103	104	100	104	102	107	105	106	106	52
P	104	107	108	105	105	103	103	104	107	103	105	102	104	102	106	105	100	106	105	108	103	109	105	52

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 51

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	51	2
10 nM RIIα	104	1

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	54
3*Sum of SDs	8.35
3*Sum of SDs/Sum of means	0.05
Z'-factor	**0.95**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	52	52	54	53	51	54	118	58	55	55	56	55	55	53	53	54	53	58	53	54	53	54	-2	52
B	51	56	53	55	53	54	53	54	54	51	57	54	55	51	53	75	55	57	53	54	56	52	-1	51
C	52	56	58	53	53	55	54	54	56	51	55	53	53	55	54	56	62	54	54	54	54	53	53	55
D	54	56	60	52	55	55	51	53	55	55	53	52	53	56	53	55	53	53	54	96	55	55	53	52
E	52	56	53	53	52	54	56	54	54	54	55	56	55	55	52	56	53	52	53	53	55	54	57	56
F	53	56	51	52	58	54	54	52	55	52	52	54	52	52	55	54	53	51	53	88	52	61	58	55
G	50	54	52	54	53	47	54	54	54	53	53	52	53	54	51	54	53	54	53	54	52	52	26	1
H	53	54	54	50	54	51	52	53	50	53	50	53	54	53	50	52	55	51	54	69	53	54	30	2
I	53	55	40	55	46	44	52	51	53	53	41	54	48	55	50	54	52	52	51	55	52	56	0	30
J	52	48	55	53	50	53	53	52	52	49	48	53	51	53	50	53	53	55	54	102	50	61	-2	31
K	51	56	47	52	51	53	53	54	50	45	53	54	42	52	54	50	63	52	57	54	61	56	51	57
L	55	40	51	50	52	54	54	57	52	53	53	52	51	53	53	51	53	53	56	55	55	58	52	56
M	55	55	40	54	53	55	52	52	55	49	57	54	54	52	55	55	52	53	54	53	55	54	55	54
N	55	54	####	53	49	43	48	48	51	54	54	49	53	49	51	54	45	50	52	67	52	68	56	54
O	54	55	54	49	54	52	52	51	52	53	52	51	52	52	52	53	49	53	51	56	54	55	55	1
P	53	56	57	54	54	52	52	53	56	52	54	51	53	51	55	54	49	55	54	57	52	58	54	1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 54

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-3	100	107	49	0	96	103
	-1	100	109	57	-3	98	105
	2	101	105	57	2	105	103
	2	101	107	58	4	103	98
		103					
		101					
		98					
		96					
Mean	0	100	107	55	1	100	102
SD	3	2	2	4	3	4	3
SEM	1	1	1	2	2	2	2

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	98	98	101	100	96	101	229	109	103	103	105	103	103	100	100	101	100	109	100	101	100	101	-3	98
B	96	105	100	103	100	101	100	101	101	96	107	101	103	96	100	141	103	107	100	101	105	98	-1	96
C	98	105	109	100	100	103	101	101	105	96	103	100	100	103	101	105	116	101	101	101	101	100	100	103
D	101	105	113	98	103	103	96	100	103	103	100	98	100	105	100	103	100	100	101	280	103	103	100	98
E	98	105	100	100	98	101	105	101	101	101	103	105	103	103	98	105	100	98	100	100	103	101	107	105
F	100	105	96	98	109	101	101	98	103	98	98	101	98	98	103	101	100	96	100	233	98	114	109	103
G	94	101	98	101	100	88	101	101	101	100	100	98	100	101	96	101	100	101	100	101	98	98	49	2
H	100	101	101	94	101	96	98	100	94	100	94	100	101	100	94	98	103	96	101	129	100	101	57	4
I	100	103	75	103	86	83	98	96	100	100	77	101	90	103	94	101	98	98	96	103	98	105	0	57
J	98	90	103	100	94	100	100	98	98	92	90	100	96	100	94	100	100	103	101	191	94	114	-3	58
K	96	105	88	98	96	100	100	101	94	85	100	101	79	98	101	94	118	98	107	101	114	105	96	107
L	103	75	96	94	98	101	101	107	98	100	100	98	96	100	100	96	100	100	105	103	103	109	98	105
M	103	103	75	101	100	103	98	98	103	92	107	101	101	98	103	103	98	100	101	100	103	101	103	101
N	103	101	####	100	92	81	90	90	96	101	101	92	100	92	96	101	85	94	98	126	98	128	105	101
O	101	103	101	92	101	98	98	96	98	100	98	96	98	98	98	100	92	100	96	105	101	103	103	2
P	100	105	107	101	101	98	98	100	105	98	101	96	100	96	103	101	92	103	101	107	98	109	101	2

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

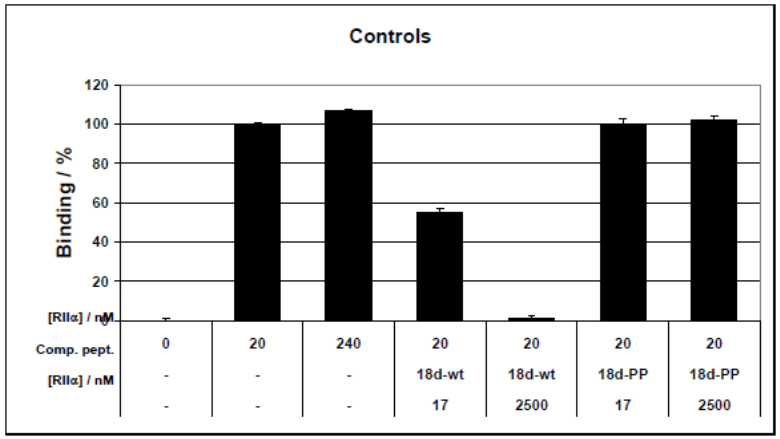


Plate no. 11

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	94	95	97	97	94	96	97	98	97	99	94	104	97	99	97	96	104	98	97	98	95	97	51	94
B	98	97	95	94	126	96	98	97	95	100	99	98	99	97	97	96	95	98	98	95	92	96	50	93
C	98	103	95	99	94	96	95	98	98	104	99	102	99	116	100	100	98	97	97	96	95	100	98	97
D	97	98	96	96	96	97	93	94	99	96	99	99	118	104	99	97	94	95	95	98	96	98	99	99
E	97	97	98	95	96	97	97	97	96	100	97	102	97	118	139	101	96	100	99	97	97	98	104	95
F	98	100	96	97	97	96	97	97	96	104	100	95	154	98	98	98	98	96	95	95	98	98	104	97
G	95	99	98	99	100	95	100	95	99	100	109	116	96	123	96	97	101	97	97	98	99	97	74	52
H	100	99	100	98	103	99	97	101	99	98	99	97	98	99	98	97	99	97	97	97	100	99	73	52
I	96	97	99	98	96	107	97	106	98	119	104	99	99	101	97	100	99	96	98	101	94	98	53	76
J	96	102	99	97	103	94	99	98	98	98	100	96	106	100	100	99	96	98	96	96	97	101	53	77
K	99	99	97	99	97	100	98	77	100	100	104	99	98	98	106	99	99	115	98	99	101	98	98	107
L	97	96	102	96	100	99	99	96	99	100	96	96	99	100	100	99	100	98	99	97	99	98	102	106
M	98	99	100	96	99	100	98	98	104	98	110	102	98	100	100	100	101	98	100	98	83	99	97	99
N	97	99	102	98	101	97	100	101	99	99	99	100	97	97	97	98	98	98	99	100	98	101	101	98
O	100	102	100	97	100	102	99	95	100	96	99	99	101	99	102	101	101	96	104	100	98	101	100	53
P	99	96	98	95	98	98	98	99	101	99	97	96	99	98	97	100	99	100	99	98	99	98	98	53

Mean of background wells (0 nM RIIb; A23,B23,O24,P24) = 52

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	52	2
10 nM RIIα	97	3

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	46
3*Sum of SDs	12.01
3*Sum of SDs/Sum of means	0.08
Z'-factor	**0.92**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	42	43	45	45	42	44	45	46	45	47	42	52	45	47	45	44	52	46	45	46	43	45	-1	42
B	46	45	43	42	74	44	46	45	43	48	47	46	47	45	45	44	43	46	46	43	40	44	-2	41
C	46	51	43	47	42	44	43	46	46	52	47	50	47	64	48	48	46	45	45	44	43	48	46	45
D	45	46	44	44	44	45	41	42	47	44	47	47	66	52	47	45	42	43	43	46	44	46	47	47
E	45	45	46	43	44	45	45	45	44	48	45	50	45	66	87	49	44	48	47	45	45	46	52	43
F	46	48	44	45	45	44	45	45	44	52	48	43	102	46	46	46	46	44	43	43	46	46	52	45
G	43	47	46	47	48	43	48	43	47	48	57	64	44	71	44	45	49	45	45	46	47	45	22	0
H	48	47	48	46	51	47	45	49	47	46	47	45	46	47	46	45	47	45	45	45	48	47	21	0
I	44	45	47	46	44	55	45	54	46	67	52	47	47	49	45	48	47	44	46	49	42	46	1	24
J	44	50	47	45	51	42	47	46	46	46	48	44	54	48	48	47	44	46	44	44	45	49	1	25
K	47	47	45	47	45	48	46	25	48	48	52	47	46	46	54	47	47	63	46	47	49	46	46	55
L	45	44	50	44	48	47	47	44	47	48	44	44	47	48	48	47	48	46	47	45	47	46	50	54
M	46	47	48	44	47	48	46	46	52	46	58	50	46	48	48	48	49	46	48	46	31	47	45	47
N	45	47	50	46	49	45	48	49	47	47	47	48	45	45	45	46	46	46	47	48	46	49	49	46
O	48	50	48	45	48	50	47	43	48	44	47	47	49	47	50	49	49	44	52	48	46	49	48	1
P	47	44	46	43	46	46	46	47	49	47	45	44	47	46	45	48	47	48	47	46	47	46	46	1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 46

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-2	101	115	49	3	101	99
	-4	104	115	47	3	110	108
	3	104	119	53	1	95	99
	3	101	121	55	1	99	104
		106					
		101					
		93					
		90					
Mean	0	100	117	51	2	101	102
SD	3	5	3	4	1	6	4
SEM	2	2	2	2	1	3	2

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	93	95	99	99	93	97	99	101	99	104	93	115	99	104	99	97	115	101	99	101	95	99	-2	93
B	101	99	95	93	163	97	101	99	95	106	104	101	104	99	99	97	95	101	101	95	88	97	-4	90
C	101	112	95	104	93	97	95	101	101	115	104	110	104	141	106	106	101	99	99	97	95	106	101	99
D	99	101	97	97	97	99	90	93	104	97	104	104	145	115	104	99	93	95	95	101	97	101	104	104
E	99	99	101	95	97	99	99	99	97	106	99	110	99	145	191	108	97	106	104	99	99	101	115	95
F	101	106	97	99	99	97	99	99	97	115	106	95	224	101	101	101	101	97	95	95	101	101	115	99
G	95	104	101	104	106	95	106	95	104	106	125	141	97	156	97	99	108	99	99	101	104	99	49	1
H	106	104	106	101	112	104	99	108	104	101	104	99	101	104	101	99	104	99	99	99	106	104	47	1
I	97	99	104	101	97	121	99	119	101	147	115	104	104	108	99	106	104	97	101	108	93	101	3	53
J	97	110	104	99	112	93	104	101	101	101	106	97	119	106	106	104	97	101	97	97	99	108	3	55
K	104	104	99	104	99	106	101	55	106	106	115	104	101	101	119	104	104	139	101	104	108	101	101	121
L	99	97	110	97	106	104	104	97	104	106	97	97	104	106	106	104	106	101	104	99	104	101	110	119
M	101	104	106	97	104	106	101	101	115	101	128	110	101	106	106	106	108	101	106	101	68	104	99	104
N	99	104	110	101	108	99	106	108	104	104	104	106	99	99	99	101	101	101	104	106	101	108	108	101
O	106	110	106	99	106	110	104	95	106	97	104	104	108	104	110	108	108	97	115	106	101	108	106	3
P	104	97	101	95	101	101	101	104	108	104	99	97	104	101	99	106	104	106	104	101	104	101	101	3

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

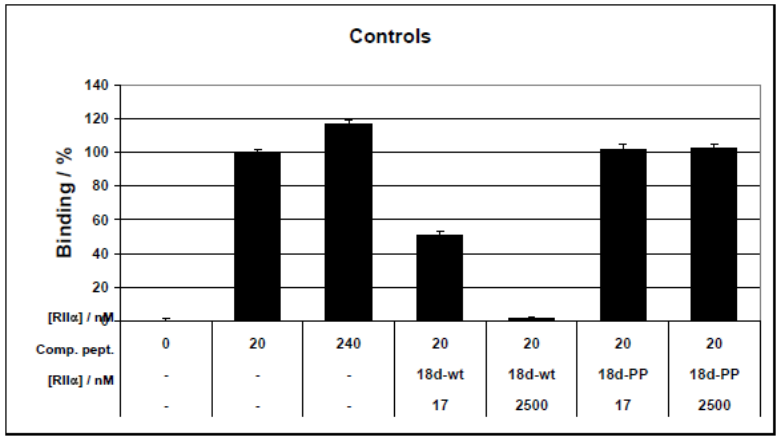


Plate no. 12

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	94	95	99	96	95	102	102	101	97	101	102	102	100	99	100	100	101	101	97	99	100	95	50	97
B	98	98	96	101	101	97	98	100	98	104	101	98	97	102	97	94	97	179	104	101	101	98	51	93
C	101	96	100	98	98	101	101	101	101	104	102	103	103	101	102	102	98	104	100	102	101	100	101	93
D	103	99	100	100	102	97	101	101	105	100	105	101	98	100	104	213	101	176	99	102	99	97	100	98
E	97	94	99	100	100	101	89	97	94	102	102	102	100	101	106	102	102	100	103	101	102	99	107	94
F	100	102	94	104	104	102	94	102	99	106	101	102	103	96	101	117	104	159	103	104	99	100	105	97
G	98	101	102	100	101	101	100	103	98	97	103	102	96	103	94	95	106	101	100	104	104	90	73	53
H	102	101	103	101	100	99	101	102	105	103	OVER	100	102	99	104	117	104	101	97	99	99	100	78	53
I	99	100	102	99	101	100	97	102	100	106	100	101	104	102	101	99	100	100	101	103	98	99	53	78
J	96	102	101	101	97	98	93	94	103	101	100	96	99	97	101	210	104	114	98	98	95	102	55	77
K	101	105	99	99	97	101	101	98	103	99	104	102	101	99	101	98	99	105	97	102	100	101	102	107
L	101	99	99	102	102	95	101	100	100	103	103	99	103	102	101	118	98	105	102	94	98	99	101	108
M	98	100	102	93	94	95	97	100	102	100	101	100	98	100	97	99	100	103	98	102	95	96	102	100
N	96	99	100	97	98	98	99	93	98	100	109	99	93	94	100	140	99	101	95	97	104	100	102	100
O	96	100	99	98	101	101	100	97	100	99	90	101	100	95	99	100	94	98	99	97	97	99	98	54
P	99	98	98	96	99	103	97	97	97	99	99	99	209	100	100	209	99	95	99	97	97	95	98	51

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 52

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	52	2
10 nM RIIα	98	3

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	47
3*Sum of SDs	12.88
3*Sum of SDs/Sum of means	0.09
Z'-factor	**0.91**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	43	44	48	45	44	51	51	50	46	50	51	51	49	48	49	49	50	50	46	48	49	44	-2	46
B	47	47	45	50	50	46	47	49	47	53	50	47	46	51	46	43	46	128	53	50	50	47	-1	42
C	50	45	49	47	47	50	50	50	50	53	51	52	52	50	51	51	47	53	49	51	50	49	50	42
D	52	48	49	49	51	46	50	50	54	49	54	50	47	49	53	162	50	125	48	51	48	46	49	47
E	46	43	48	49	49	50	38	46	43	51	51	51	49	50	55	51	51	49	52	50	51	48	56	43
F	49	51	43	53	53	51	43	51	48	55	50	51	52	45	50	66	53	108	52	53	48	49	54	46
G	47	50	51	49	50	50	49	52	47	46	52	51	45	52	43	44	55	50	49	53	53	39	22	2
H	51	50	52	50	49	48	50	51	54	52	####	49	51	48	53	66	53	50	46	48	48	49	27	2
I	48	49	51	48	50	49	46	51	49	55	49	50	53	51	50	48	49	49	50	52	47	48	2	27
J	45	51	50	50	46	47	42	43	52	50	49	45	48	46	50	159	53	63	47	47	44	51	4	26
K	50	54	48	48	46	50	50	47	52	48	53	51	50	48	50	47	48	54	46	51	49	50	51	56
L	50	48	48	51	51	44	50	49	49	52	52	48	52	51	50	67	47	54	51	43	47	48	50	57
M	47	49	51	42	43	44	46	49	51	49	50	49	47	49	46	48	49	52	47	51	44	45	51	49
N	45	48	49	46	47	47	48	42	47	49	58	48	42	43	49	89	48	50	44	46	53	49	51	49
O	45	49	48	47	50	50	49	46	49	48	39	50	49	44	48	49	43	47	48	46	46	48	47	3
P	48	47	47	45	48	52	46	46	46	48	48	48	158	49	49	158	48	44	48	46	46	44	47	-1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 47

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-3	106	118	46	3	108	108
	-1	103	114	57	7	106	108
	5	103	121	57	3	91	89
	-1	103	118	54	3	97	99
		99					
		99					
		97					
		89					
Mean	0	100	118	53	4	100	101
SD	4	5	3	5	2	8	9
SEM	2	2	1	3	1	4	5

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	91	93	101	95	93	108	108	106	97	106	108	108	103	101	103	103	106	106	97	101	103	93	-3	97
B	99	99	95	106	106	97	99	103	99	112	106	99	97	108	97	91	97	272	112	106	106	99	-1	89
C	106	95	103	99	99	106	106	106	106	112	108	110	110	106	108	108	99	112	103	108	106	103	106	89
D	110	101	103	103	108	97	106	106	114	103	114	106	99	103	112	342	106	265	101	108	101	97	103	99
E	97	91	101	103	103	106	80	97	91	108	108	108	103	106	116	108	108	103	110	106	108	101	118	91
F	103	108	91	112	112	108	91	108	101	116	106	108	110	95	106	140	112	229	110	112	101	103	114	97
G	99	106	108	103	106	106	103	110	99	97	110	108	95	110	91	93	116	106	103	112	112	82	46	3
H	108	106	110	106	103	101	106	108	114	110	####	103	108	101	112	140	112	106	97	101	101	103	57	3
I	101	103	108	101	106	103	97	108	103	116	103	106	112	108	106	101	103	103	106	110	99	101	3	57
J	95	108	106	106	97	99	89	91	110	106	103	95	101	97	106	336	112	133	99	99	93	108	7	54
K	106	114	101	101	97	106	106	99	110	101	112	108	106	101	106	99	101	114	97	108	103	106	108	118
L	106	101	101	108	108	93	106	103	103	110	110	101	110	108	106	142	99	114	108	91	99	101	106	121
M	99	103	108	89	91	93	97	103	108	103	106	103	99	103	97	101	103	110	99	108	93	95	108	103
N	95	101	103	97	99	99	101	89	99	103	123	101	89	91	103	189	101	106	93	97	112	103	108	103
O	95	103	101	99	106	106	103	97	103	101	82	106	103	93	101	103	91	99	101	97	97	101	99	5
P	101	99	99	95	101	110	97	97	97	101	101	101	338	103	103	338	101	93	101	97	97	93	99	-1

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

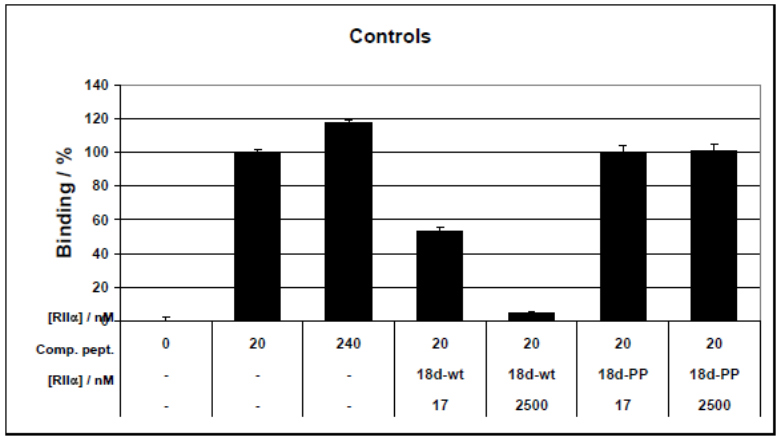


Plate no. 13

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	98	94	101	96	104	101	101	102	100	101	100	99	100	97	100	123	102	139	93	123	97	99	48	96
B	102	92	96	95	102	96	97	97	98	100	101	101	94	102	95	94	93	159	98	99	99	96	52	93
C	101	99	107	98	98	100	99	100	103	103	101	103	102	98	101	233	97	134	104	186	102	96	94	91
D	103	100	99	100	99	96	100	101	105	98	103	101	98	101	101	197	99	129	97	102	99	97	102	101
E	101	92	100	99	96	100	100	99	97	105	102	101	98	102	102	OVER	99	101	103	101	101	100	106	95
F	101	99	98	100	101	101	94	98	98	101	100	100	103	95	101	109	102	102	103	102	100	100	106	94
G	100	101	108	98	99	100	99	129	99	98	101	103	102	269	96	OVER	102	106	99	100	103	94	74	55
H	103	102	103	102	97	99	100	101	103	102	103	100	102	183	96	96	102	103	95	99	99	99	78	55
I	99	99	104	102	100	98	102	108	101	101	100	100	102	247	106	197	102	256	104	103	101	103	54	77
J	100	98	102	102	100	99	95	94	101	101	101	95	102	99	102	159	99	101	102	101	98	104	52	77
K	99	103	175	100	101	103	101	103	103	98	103	101	103	233	97	OVER	99	194	99	102	102	103	100	107
L	99	99	99	100	102	95	100	191	102	105	103	102	104	102	110	138	96	129	104	94	102	103	101	106
M	98	101	108	94	101	95	99	105	102	102	104	106	104	OVER	103	OVER	106	203	103	101	106	98	103	98
N	98	103	102	100	102	100	103	104	103	106	103	104	102	101	102	169	101	104	102	94	103	100	102	101
O	100	106	122	103	119	103	102	100	100	100	101	101	102	144	103	228	101	111	101	102	102	99	99	54
P	100	100	98	99	99	103	101	100	105	103	101	101	102	105	101	105	101	103	100	101	99	97	100	52

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 52

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	52	3
10 nM RIIα	98	3

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	46
3*Sum of SDs	17.36
3*Sum of SDs/Sum of means	0.12
Z'-factor	**0.88**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	47	43	50	45	53	50	50	51	49	50	49	48	49	46	49	72	51	88	42	72	46	48	-4	45
B	51	41	45	44	51	45	46	46	47	49	50	50	43	51	44	43	42	108	47	48	48	45	1	42
C	50	48	56	47	47	49	48	49	52	52	50	52	51	47	50	182	46	83	53	135	51	45	43	40
D	52	49	48	49	48	45	49	50	54	47	52	50	47	50	50	146	48	78	46	51	48	46	51	50
E	50	41	49	48	45	49	49	48	46	54	51	50	47	51	51	#####	48	50	52	50	50	49	55	44
F	50	48	47	49	50	50	43	47	47	50	49	49	52	44	50	58	51	51	52	51	49	49	55	43
G	49	50	57	47	48	49	48	78	48	47	50	52	51	218	45	#####	51	55	48	49	52	43	23	4
H	52	51	52	51	46	48	49	50	52	51	52	49	51	132	45	45	51	52	44	48	48	48	27	4
I	48	48	53	51	49	47	51	57	50	50	49	49	51	196	55	146	51	205	53	52	50	52	3	26
J	49	47	51	51	49	48	44	43	50	50	50	44	51	48	51	108	48	50	51	50	47	53	1	26
K	48	52	124	49	50	52	50	52	52	47	52	50	52	182	46	#####	48	143	48	51	51	52	49	56
L	48	48	48	49	51	44	49	140	51	54	52	51	53	51	59	87	45	78	53	43	51	52	50	55
M	47	50	57	43	50	44	48	54	51	51	53	55	53	#####	52	#####	55	152	52	50	55	47	52	47
N	47	52	51	49	51	49	52	53	52	55	52	53	51	50	51	118	50	53	51	43	52	49	51	50
O	49	55	71	52	68	52	51	49	49	49	50	50	51	93	52	177	50	60	50	51	51	48	48	3
P	49	49	47	48	48	52	50	49	54	52	50	50	51	54	50	54	50	52	49	50	48	46	49	1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 46

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-8	92	118	49	5	105	111
	1	109	118	57	1	107	109
	5	100	118	55	8	94	85
	1	107	120	55	8	92	107
		102					
		105					
		96					
		89					
Mean	0	100	118	54	5	99	103
SD	5	7	1	4	3	8	12
SEM	3	2	1	2	2	4	6

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	100	92	107	96	113	107	107	109	105	107	105	102	105	98	105	154	109	189	89	154	98	102	-8	96
B	109	87	96	94	109	96	98	98	100	105	107	107	92	109	94	92	89	230	100	102	102	96	1	89
C	107	102	120	100	100	105	102	105	111	111	107	111	109	100	107	389	98	178	113	289	109	96	92	85
D	111	105	102	105	102	96	105	107	115	100	111	107	100	107	107	312	102	167	98	109	102	98	109	107
E	107	87	105	102	96	105	105	102	98	115	109	107	100	109	109	#####	102	107	111	107	107	105	118	94
F	107	102	100	105	107	107	92	100	100	107	105	105	111	94	107	124	109	109	111	109	105	105	118	92
G	105	107	122	100	102	105	102	167	102	100	107	111	109	466	96	#####	109	118	102	105	111	92	49	9
H	111	109	111	109	98	102	105	107	111	109	111	105	109	284	96	96	109	111	94	102	102	102	57	9
I	102	102	113	109	105	100	109	122	107	107	105	105	109	422	118	314	109	541	113	111	107	111	5	55
J	105	100	109	109	105	102	94	92	107	107	107	94	109	102	109	232	102	107	109	107	100	113	1	55
K	102	111	265	105	107	111	107	111	111	100	111	107	111	389	98	#####	102	307	102	109	109	111	105	120
L	102	102	102	105	109	94	105	301	109	115	111	109	113	109	126	189	96	167	113	92	109	111	107	118
M	100	107	122	92	107	94	102	115	109	109	113	118	113	#####	111	#####	118	327	111	107	118	100	111	100
N	100	111	109	105	109	105	111	113	111	118	111	113	109	107	109	253	107	113	109	92	111	105	109	107
O	105	118	152	111	146	111	109	105	105	105	107	107	109	199	111	381	107	128	107	109	109	102	102	5
P	105	105	100	102	102	111	107	105	115	111	107	107	109	115	107	115	107	111	105	107	102	98	105	1

Range of Binding / %																	
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

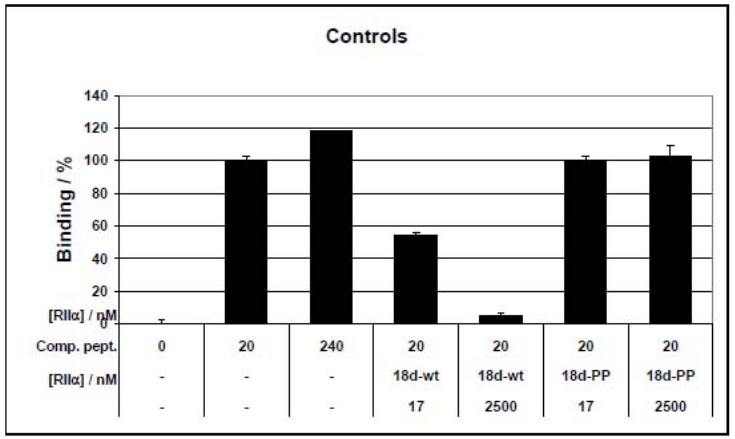


Plate no. 14

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	93	95	96	95	95	98	98	100	96	98	99	95	98	95	96	96	95	95	92	98	80	96	48	96
B	102	93	95	94	100	92	98	93	97	98	100	99	92	97	95	91	94	103	98	96	98	97	50	92
C	99	96	97	98	99	94	98	97	97	100	100	97	98	98	98	101	93	100	98	101	98	95	94	92
D	98	98	99	101	95	91	99	96	95	97	100	100	96	97	100	101	95	99	96	100	103	98	96	99
E	100	95	99	97	93	101	90	100	100	101	97	97	94	99	98	104	101	101	100	103	105	102	105	93
F	90	101	92	99	101	100	93	98	96	99	99	95	99	92	102	99	100	100	100	99	99	99	105	92
G	96	97	101	97	97	101	98	99	96	96	101	99	94	103	91	92	103	97	82	99	101	93	70	49
H	98	98	103	101	96	100	96	101	100	99	96	92	100	96	113	94	99	101	94	96	100	102	77	52
I	97	98	102	103	103	102	95	97	100	102	99	101	100	102	98	99	102	101	101	102	99	96	54	75
J	74	100	102	102	99	94	94	92	100	100	97	95	92	100	97	93	99	101	100	98	98	101	55	77
K	102	100	102	99	98	99	98	99	98	98	102	100	98	102	98	104	99	101	99	100	98	99	101	105
L	99	99	102	100	101	91	98	100	102	101	100	101	98	113	98	101	95	100	103	95	97	98	103	108
M	96	101	101	93	95	102	96	103	102	101	98	99	100	110	101	102	100	101	100	101	96	96	99	100
N	97	97	102	98	91	98	99	96	97	100	98	99	92	OVER	99	98	99	100	99	95	102	100	101	100
O	97	101	101	101	100	103	99	95	95	93	98	101	101	94	99	101	95	96	94	99	104	100	98	50
P	98	96	98	97	99	98	96	99	90	90	89	99	96	109	99	96	97	91	99	99	100	97	96	49

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 49

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	49	1
10 nM RIIα	97	3

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	47
3*Sum of SDs	11.20
3*Sum of SDs/Sum of means	0.08
Z'-factor	**0.92**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	44	46	47	46	46	49	49	51	47	49	50	46	49	46	47	47	46	46	43	49	31	47	-1	47
B	53	44	46	45	51	43	49	44	48	49	51	50	43	48	46	42	45	54	49	47	49	48	1	43
C	50	47	48	49	50	45	49	48	48	51	51	48	49	49	49	52	44	51	49	52	49	46	45	43
D	49	49	50	52	46	42	50	47	46	48	51	51	47	48	51	52	46	50	47	51	54	49	47	50
E	51	46	50	48	44	52	41	51	51	52	48	48	45	50	49	55	52	52	51	54	56	53	56	44
F	41	52	43	50	52	51	44	49	47	50	50	46	50	43	53	50	51	51	51	50	50	50	56	43
G	47	48	52	48	48	52	49	50	47	47	52	50	45	54	42	43	54	48	33	50	52	44	21	0
H	49	49	54	52	47	51	47	52	51	50	47	43	51	47	64	45	50	52	45	47	51	53	28	3
I	48	49	53	54	54	53	46	48	51	53	50	52	51	53	49	50	53	52	52	53	50	47	5	26
J	25	51	53	53	50	45	45	43	51	51	48	46	43	51	48	44	50	52	51	49	49	52	6	28
K	53	51	53	50	49	50	49	50	49	49	53	51	49	53	49	55	50	52	50	51	49	50	52	56
L	50	50	53	51	52	42	49	51	53	52	51	52	49	64	49	52	46	51	54	46	48	49	54	59
M	47	52	52	44	46	53	47	54	53	52	49	50	51	61	52	53	51	52	51	52	47	47	50	51
N	48	48	53	49	42	49	50	47	48	51	49	50	43	####	50	49	50	51	50	46	53	51	52	51
O	48	52	52	52	51	54	50	46	46	44	49	52	52	45	50	52	46	47	45	50	55	51	49	1
P	49	47	49	48	50	49	47	50	41	41	40	50	47	60	50	47	48	42	50	50	51	48	47	0

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 47

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-3	95	118	44	10	110	105
	2	99	118	59	12	114	110
	2	107	124	54	-1	93	90
	-1	107	118	59	6	90	105
		103					
		99					
		99					
		90					
Mean	0	100	120	54	7	102	103
SD	2	6	3	7	6	12	8
SEM	1	2	2	3	3	6	4

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	93	97	99	97	97	103	103	107	99	103	105	97	103	97	99	99	97	97	90	103	65	99	-3	99
B	112	93	97	95	107	90	103	93	101	103	107	105	90	101	97	88	95	114	103	99	103	101	2	90
C	105	99	101	103	105	95	103	101	101	107	107	101	103	103	103	110	93	107	103	110	103	97	95	90
D	103	103	105	110	97	88	105	99	97	101	107	107	99	101	107	110	97	105	99	107	114	103	99	105
E	107	97	105	101	93	110	86	107	107	110	101	101	95	105	103	116	110	110	107	114	118	112	118	93
F	86	110	90	105	110	107	93	103	99	105	105	97	105	90	112	105	107	107	107	105	105	105	118	90
G	99	101	110	101	101	110	103	105	99	99	110	105	95	114	88	90	114	101	69	105	110	93	44	-1
H	103	103	114	110	99	107	99	110	107	105	99	90	107	99	135	95	105	110	95	99	107	112	59	6
I	101	103	112	114	114	112	97	101	107	112	105	110	107	112	103	105	112	110	110	112	105	99	10	54
J	52	107	112	112	105	95	95	90	107	107	101	97	90	107	101	93	105	110	107	103	103	110	12	59
K	112	107	112	105	103	105	103	105	103	103	112	107	103	112	103	116	105	110	105	107	103	105	110	116
L	105	105	112	107	110	88	103	107	112	110	107	110	103	135	103	110	97	107	114	97	101	103	114	124
M	99	110	110	93	97	112	99	114	112	110	103	105	107	129	110	112	107	110	107	110	99	99	105	107
N	101	101	112	103	88	103	105	99	101	107	103	105	90	####	105	103	105	107	105	97	112	107	110	107
O	101	110	110	110	107	114	105	97	97	93	103	110	110	95	105	110	97	99	95	105	116	107	103	2
P	103	99	103	101	105	103	99	105	86	86	84	105	99	126	105	99	101	88	105	105	107	101	99	-1

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

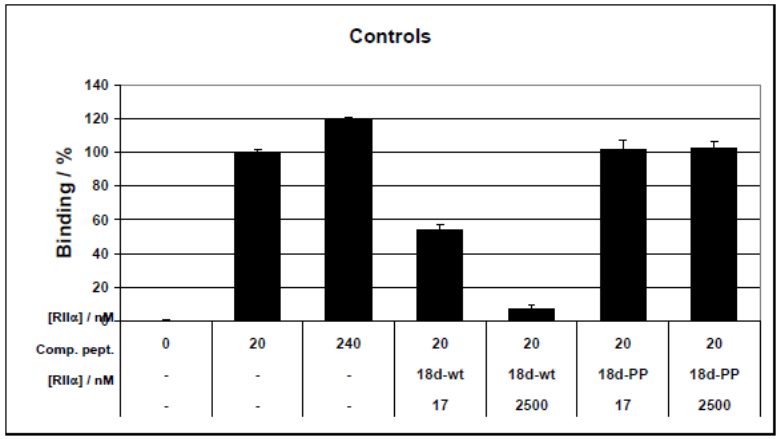


Plate no. 15

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	93	91	97	93	93	97	100	99	95	97	99	94	97	97	100	98	91	92	95	95	97	96	49	98
B	99	89	95	94	97	95	95	91	91	96	100	97	89	98	92	90	91	98	93	96	95	95	49	92
C	97	97	98	96	97	95	96	96	94	99	97	95	94	96	97	96	91	95	98	98	97	97	91	93
D	101	95	99	99	92	90	97	96	100	94	97	98	94	98	97	97	97	96	97	96	97	93	97	100
E	96	94	94	92	96	97	96	96	97	95	96	96	99	96	96	98	97	96	95	96	94	99	101	93
F	101	99	91	100	95	95	90	97	98	97	96	97	95	90	96	99	97	96	94	97	96	97	101	91
G	96	97	99	97	106	100	96	90	96	91	97	96	101	98	93	95	98	97	97	100	98	91	72	54
H	100	101	104	OVER	96	100	96	98	97	99	97	94	98	96	99	93	96	101	92	97	99	102	76	54
I	99	99	100	99	101	97	96	98	99	101	99	112	102	144	98	102	97	112	102	100	98	99	54	74
J	98	100	102	97	99	97	90	93	99	93	98	93	95	97	98	92	98	100	102	100	100	102	55	77
K	97	101	104	100	100	98	97	98	100	99	103	102	103	103	99	98	99	104	98	102	103	102	102	108
L	98	102	104	100	102	100	102	104	100	102	103	102	100	102	100	100	96	100	103	94	100	98	103	107
M	95	97	102	97	94	101	98	143	101	103	100	102	145	105	100	104	97	99	102	99	100	97	100	101
N	94	101	101	102	95	99	100	101	102	101	100	96	95	102	103	102	101	99	99	95	102	99	102	100
O	98	104	99	100	103	101	100	116	101	97	101	104	103	100	99	103	98	104	99	100	102	102	99	52
P	98	98	96	94	99	98	97	98	101	98	97	96	99	100	99	101	93	98	99	94	100	97	96	51

Mean of background wells (0 nM RIIb; A23,B23,O24,P24) = 50

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	50	2
10 nM RIIα	97	4

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	47
3*Sum of SDs	15.35
3*Sum of SDs/Sum of means	0.10
Z'-factor	**0.90**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	43	41	47	43	43	47	50	49	45	47	49	44	47	47	50	48	41	42	45	45	47	46	-1	48
B	49	39	45	44	47	45	45	41	41	46	50	47	39	48	42	40	41	48	43	46	45	45	-1	42
C	47	47	48	46	47	45	46	46	44	49	47	45	44	46	47	46	41	45	48	48	47	47	41	43
D	51	45	49	49	42	40	47	46	50	44	47	48	44	48	47	47	47	46	47	46	47	43	47	50
E	46	44	44	42	46	47	46	46	47	45	46	46	49	46	46	48	47	46	45	46	44	49	51	43
F	51	49	41	50	45	45	40	47	48	47	46	47	45	40	46	49	47	46	44	47	46	47	51	41
G	46	47	49	47	56	50	46	40	46	41	47	46	51	48	43	45	48	47	47	50	48	41	22	4
H	50	51	54	####	46	50	46	48	47	49	47	44	48	46	49	43	46	51	42	47	49	52	26	4
I	49	49	50	49	51	47	46	48	49	51	49	62	52	94	48	52	47	62	52	50	48	49	4	24
J	48	50	52	47	49	47	40	43	49	43	48	43	45	47	48	42	48	50	52	50	50	52	5	27
K	47	51	54	50	50	48	47	48	50	49	53	52	53	53	49	48	49	54	48	52	53	52	52	58
L	48	52	54	50	52	50	52	54	50	52	53	52	50	52	50	50	46	50	53	44	50	48	53	57
M	45	47	52	47	44	51	48	93	51	53	50	52	95	55	50	54	47	49	52	49	50	47	50	51
N	44	51	51	52	45	49	50	51	52	51	50	46	45	52	53	52	51	49	49	45	52	49	52	50
O	48	54	49	50	53	51	50	66	51	47	51	54	53	50	49	53	48	54	49	50	52	52	49	2
P	48	48	46	44	49	48	47	48	51	48	47	46	49	50	49	51	43	48	49	44	50	47	46	1

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 47

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-3	88	109	47	8	111	107
	-3	101	109	55	10	113	111
	4	109	122	51	8	92	92
	2	107	124	58	8	88	107
		105					
		98					
		103					
		90					
Mean	0	100	116	53	9	101	104
SD	3	8	8	5	1	13	8
SEM	2	3	4	2	1	7	4

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	92	88	101	92	92	101	107	105	96	101	105	94	101	101	107	103	88	90	96	96	101	98	-3	103
B	105	83	96	94	101	96	96	88	88	98	107	101	83	103	90	85	88	103	92	98	96	96	-3	90
C	101	101	103	98	101	96	98	98	94	105	101	96	94	98	101	98	88	96	103	103	101	101	88	92
D	109	96	105	105	90	85	101	98	107	94	101	103	94	103	101	101	101	98	101	98	101	92	101	107
E	98	94	94	90	98	101	98	98	101	96	98	98	105	98	98	103	101	98	96	98	94	105	109	92
F	109	105	88	107	96	96	85	101	103	101	98	101	96	85	98	105	101	98	94	101	98	101	109	88
G	98	101	105	101	120	107	98	85	98	88	101	98	109	103	92	96	103	101	101	107	103	88	47	8
H	107	109	116	####	98	107	98	103	101	105	101	94	103	98	105	92	98	109	90	101	105	111	55	8
I	105	105	107	105	109	101	98	103	105	109	105	133	111	202	103	111	101	133	111	107	103	105	8	51
J	103	107	111	101	105	101	85	92	105	92	103	92	96	101	103	90	103	107	111	107	107	111	10	58
K	101	109	116	107	107	103	101	103	107	105	113	111	113	113	105	103	105	116	103	111	113	111	111	124
L	103	111	116	107	111	107	111	116	107	111	113	111	107	111	107	107	98	107	113	94	107	103	113	122
M	96	101	111	101	94	109	103	198	109	113	107	111	204	118	107	116	101	105	111	105	107	101	107	109
N	94	109	109	111	96	105	107	109	111	109	107	98	96	111	113	111	109	105	105	96	111	105	111	107
O	103	116	105	107	113	109	107	141	109	101	109	116	113	107	105	113	103	116	105	107	111	111	105	4
P	103	103	98	94	105	103	101	103	109	103	101	98	105	107	105	109	92	103	105	94	107	101	98	2

Range of Binding / %																	
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

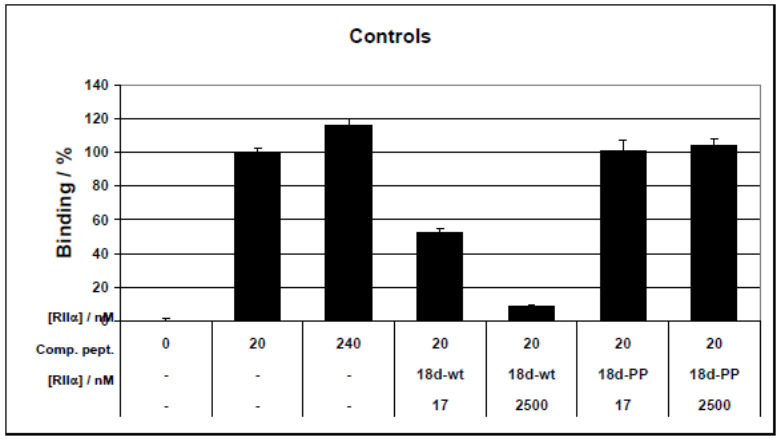


Plate no. 16

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	98	97	96	88	94	100	100	100	97	98	97	95	97	96	96	97	92	95	86	97	94	47	49	95
B	101	91	95	204	99	97	97	96	100	95	96	99	95	99	93	92	94	99	96	98	96	95	50	92
C	96	97	96	99	91	98	96	98	99	101	99	99	97	95	98	101	95	101	97	97	95	98	92	92
D	97	97	97	97	97	95	96	98	101	99	99	100	96	99	99	100	96	101	99	98	98	100	98	100
E	96	95	97	94	93	100	88	100	99	102	99	98	99	98	99	99	102	98	99	100	99	98	104	94
F	96	94	94	97	99	98	93	100	100	99	97	98	99	93	96	98	98	101	102	101	95	97	102	94
G	94	94	100	96	99	101	97	99	97	95	101	100	99	101	94	89	100	99	100	100	100	95	74	51
H	100	96	99	100	95	100	98	102	99	100	96	97	99	97	97	94	104	99	95	96	99	102	73	52
I	97	101	98	97	96	98	95	96	99	100	98	96	99	100	99	99	100	98	102	105	96	98	51	71
J	98	97	100	98	95	94	97	94	99	99	99	91	97	95	95	95	103	101	97	100	98	101	53	73
K	99	99	99	100	104	99	97	98	101	99	101	99	97	99	104	98	96	101	97	99	99	96	98	105
L	100	97	99	97	98	98	101	99	99	98	100	101	97	100	98	100	99	100	99	95	100	97	100	106
M	99	101	99	99	99	95	98	99	100	100	99	102	98	100	97	100	100	102	101	100	101	98	98	99
N	95	97	100	97	98	100	98	97	102	100	101	100	92	99	98	96	103	99	100	94	98	100	101	98
O	98	102	101	100	100	99	98	98	98	97	99	101	99	94	98	100	99	97	99	98	104	97	100	53
P	99	100	99	93	99	99	97	99	102	98	98	100	97	98	99	97	102	98	101	99	100	97	98	53

Mean of background wells (0 nM RIIb; A23,B23,O24,P24) = 51

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	51	2
10 nM RIIα	97	3

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	45
3*Sum of SDs	15.53
3*Sum of SDs/Sum of means	0.11
Z'-factor	**0.89**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	47	46	45	37	43	49	49	49	46	47	46	44	46	45	45	46	41	44	35	46	43	-4	-2	44
B	50	40	44	153	48	46	46	45	49	44	45	48	44	48	42	41	43	48	45	47	45	44	-1	41
C	45	46	45	48	40	47	45	47	48	50	48	48	46	44	47	50	44	50	46	46	44	47	41	41
D	46	46	46	46	46	44	45	47	50	48	48	49	45	48	48	49	45	50	48	47	47	49	47	49
E	45	44	46	43	42	49	37	49	48	51	48	47	48	47	48	48	51	47	48	49	48	47	53	43
F	45	43	43	46	48	47	42	49	49	48	46	47	48	42	45	47	47	50	51	50	44	46	51	43
G	43	43	49	45	48	50	46	48	46	44	50	49	48	50	43	38	49	48	49	49	49	44	23	0
H	49	45	48	49	44	49	47	51	48	49	45	46	48	46	46	43	53	48	44	45	48	51	22	1
I	46	50	47	46	45	47	44	45	48	49	47	45	48	49	48	48	49	47	51	54	45	47	0	20
J	47	46	49	47	44	43	46	43	48	48	48	40	46	44	44	44	52	50	46	49	47	50	2	22
K	48	48	48	49	53	48	46	47	50	48	50	48	46	48	53	47	45	50	46	48	48	45	47	54
L	49	46	48	46	47	47	50	48	48	47	49	50	46	49	47	49	48	49	48	44	49	46	49	55
M	48	50	48	48	48	44	47	48	49	49	48	51	47	49	46	49	49	51	50	49	50	47	47	48
N	44	46	49	46	47	49	47	46	51	49	50	49	41	48	47	45	52	48	49	43	47	49	50	47
O	47	51	50	49	49	48	47	47	47	46	48	50	48	43	47	49	48	46	48	47	53	46	49	2
P	48	49	48	42	48	48	46	48	51	47	47	49	46	47	48	46	51	47	50	48	49	46	47	2

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 45

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-5	90	117	50	-1	103	103
	-3	103	112	48	4	108	110
	4	106	121	44	-1	94	90
	4	103	119	48	2	94	108
		108					
		103					
		97					
		90					
Mean	0	100	117	48	1	100	103
SD	5	7	4	3	2	7	9
SEM	2	2	2	1	1	3	4

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	103	101	99	81	94	108	108	108	101	103	101	97	101	99	99	101	90	97	77	101	94	-9	-5	97
B	110	88	97	333	106	101	101	99	108	97	99	106	97	106	92	90	94	106	99	103	99	97	-3	90
C	99	101	99	106	88	103	99	103	106	110	106	106	101	97	103	110	97	110	101	101	97	103	90	90
D	101	101	101	101	101	97	99	103	110	106	106	108	99	106	106	108	99	110	106	103	103	108	103	108
E	99	97	101	94	92	108	81	108	106	112	106	103	106	103	106	106	112	103	106	108	106	103	117	94
F	99	94	94	101	106	103	92	108	108	106	101	103	106	92	99	103	103	110	112	110	97	101	112	94
G	94	94	108	99	106	110	101	106	101	97	110	108	106	110	94	83	108	106	108	108	108	97	50	-1
H	108	99	106	108	97	108	103	112	106	108	99	101	106	101	101	94	117	106	97	99	106	112	48	2
I	101	110	103	101	99	103	97	99	106	108	103	99	106	108	106	106	108	103	112	119	99	103	-1	44
J	103	101	108	103	97	94	101	94	106	106	106	88	101	97	97	97	114	110	101	108	103	110	4	48
K	106	106	106	108	117	106	101	103	110	106	110	106	101	106	117	103	99	110	101	106	106	99	103	119
L	108	101	106	101	103	103	110	106	106	103	108	110	101	108	103	108	106	108	106	97	108	101	108	121
M	106	110	106	106	106	97	103	106	108	108	106	112	103	108	101	108	108	112	110	108	110	103	103	106
N	97	101	108	101	103	108	103	101	112	108	110	108	90	106	103	99	114	106	108	94	103	108	110	103
O	103	112	110	108	108	106	103	103	103	101	106	110	106	94	103	108	106	101	106	103	117	101	108	4
P	106	108	106	92	106	106	101	106	112	103	103	108	101	103	106	101	112	103	110	106	108	101	103	4

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

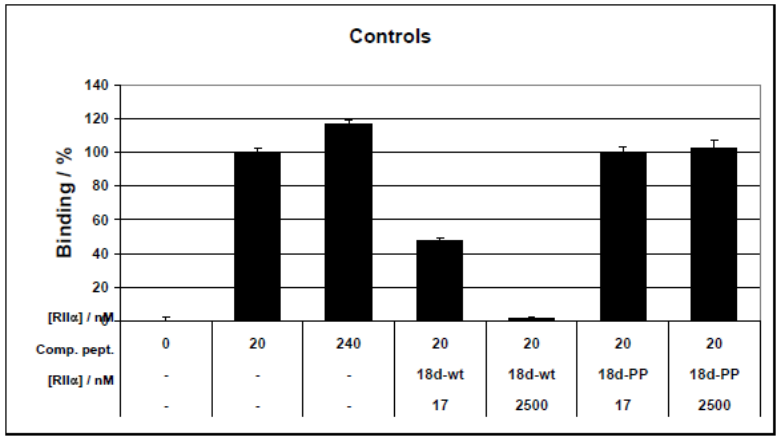


Plate no. 17

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	100	102	102	98	100	104	104	104	103	101	101	102	104	99	99	100	101	96	95	99	103	102	51	99
B	102	97	100	102	103	101	100	99	98	100	97	100	102	103	105	97	98	103	108	100	102	100	52	98
C	100	101	100	103	101	98	98	103	102	104	103	102	100	103	101	103	97	102	104	101	99	102	97	99
D	101	104	100	97	102	99	101	100	106	101	103	100	101	100	103	103	104	102	142	102	100	100	104	104
E	99	100	105	102	100	102	98	102	104	106	101	133	103	104	101	105	106	103	105	101	103	103	108	98
F	100	99	98	105	97	105	97	101	101	104	100	102	104	99	102	102	147	103	191	104	101	103	107	103
G	98	104	104	102	100	101	104	102	101	100	103	101	104	103	101	99	102	102	104	106	102	97	78	57
H	102	99	100	103	99	103	99	101	104	104	101	100	103	100	102	99	OVER	104	140	101	103	104	78	58
I	99	96	99	102	98	105	100	100	102	103	102	102	103	105	98	104	103	104	101	106	102	103	54	77
J	100	96	100	101	99	97	101	100	100	101	101	97	97	100	100	99	OVER	102	100	102	102	105	55	78
K	102	104	98	101	102	102	103	100	101	103	102	100	99	114	101	102	102	105	102	103	100	103	102	112
L	101	101	101	100	104	100	101	103	98	100	103	101	99	101	102	102	OVER	101	104	102	99	101	103	109
M	100	100	99	100	98	97	100	101	103	101	101	110	102	101	103	105	111	101	103	99	104	104	102	104
N	98	101	102	99	101	100	100	102	101	100	101	100	100	103	102	101	192	100	100	103	100	101	102	104
O	98	105	101	101	103	98	101	100	102	99	101	68	101	102	102	101	101	103	102	99	103	103	101	56
P	99	100	98	102	100	96	99	100	102	100	100	101	98	101	100	99	166	101	102	99	101	101	100	55

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 54

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	54	2
10 nM RIIα	101	3

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	47
3*Sum of SDs	15.69
3*Sum of SDs/Sum of means	0.10
Z'-factor	**0.90**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	47	49	49	45	47	51	51	51	50	48	48	49	51	46	46	47	48	43	42	46	50	49	-3	46
B	49	44	47	49	50	48	47	46	45	47	44	47	49	50	52	44	45	50	55	47	49	47	-2	45
C	47	48	47	50	48	45	45	50	49	51	50	49	47	50	48	50	44	49	51	48	46	49	44	46
D	48	51	47	44	49	46	48	47	53	48	50	47	48	47	50	50	51	49	89	49	47	47	51	51
E	46	47	52	49	47	49	45	49	51	53	48	80	50	51	48	52	53	50	52	48	50	50	55	45
F	47	46	45	52	44	52	44	48	48	51	47	49	51	46	49	49	94	50	138	51	48	50	54	50
G	45	51	51	49	47	48	51	49	48	47	50	48	51	50	48	46	49	49	51	53	49	44	25	4
H	49	46	47	50	46	50	46	48	51	51	48	47	50	47	49	46	#####	51	87	48	50	51	25	5
I	46	43	46	49	45	52	47	47	49	50	49	49	50	52	45	51	50	51	48	53	49	50	1	24
J	47	43	47	48	46	44	48	47	47	48	48	44	44	47	47	46	#####	49	47	49	49	52	2	25
K	49	51	45	48	49	49	50	47	48	50	49	47	46	61	48	49	49	52	49	50	47	50	49	59
L	48	48	48	47	51	47	48	50	45	47	50	48	46	48	49	49	#####	48	51	49	46	48	50	56
M	47	47	46	47	45	44	47	48	50	48	48	57	49	48	50	52	58	48	50	46	51	51	49	51
N	45	48	49	46	48	47	47	49	48	47	48	47	47	50	49	48	139	47	47	50	47	48	49	51
O	45	52	48	48	50	45	48	47	49	46	48	15	48	49	49	48	48	50	49	46	50	50	48	3
P	46	47	45	49	47	43	46	47	49	47	47	48	45	48	47	46	113	48	49	46	48	48	47	2

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 47

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-5	92	115	52	1	102	102
	-3	107	113	52	3	104	102
	5	107	117	50	7	94	96
	3	107	123	52	9	104	107
		100					
		98					
		96					
		94					
Mean	0	100	117	51	5	101	102
SD	5	6	5	1	4	5	4
SEM	3	2	2	1	2	3	2

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	98	102	102	94	98	107	107	107	104	100	100	102	107	96	96	98	100	90	88	96	104	102	-5	96
B	102	92	98	102	104	100	98	96	94	98	92	98	102	104	109	92	94	104	115	98	102	98	-3	94
C	98	100	98	104	100	94	94	104	102	107	104	102	98	104	100	104	92	102	107	100	96	102	92	96
D	100	107	98	92	102	96	100	98	111	100	104	98	100	98	104	104	107	102	187	102	98	98	107	107
E	96	98	109	102	98	102	94	102	107	111	100	173	104	107	100	109	111	104	109	100	104	104	115	94
F	98	96	94	109	92	109	92	100	100	107	98	102	107	96	102	102	187	104	289	107	100	104	113	104
G	94	107	107	102	98	100	107	102	100	98	104	100	107	104	100	96	102	102	107	111	102	92	52	7
H	102	96	98	104	96	104	96	100	107	107	100	98	104	98	102	96	#####	107	183	100	104	107	52	9
I	96	90	96	102	94	109	98	98	102	104	102	102	104	109	94	107	104	107	100	111	102	104	1	50
J	98	90	98	100	96	92	100	98	98	100	100	92	92	98	98	96	#####	102	98	102	102	109	3	52
K	102	107	94	100	102	102	104	98	100	104	102	98	96	128	100	102	102	109	102	104	98	104	102	123
L	100	100	100	98	107	98	100	104	94	98	104	100	96	100	102	102	#####	100	107	102	96	100	104	117
M	98	98	96	98	94	92	98	100	104	100	100	119	102	100	104	109	121	100	104	96	107	107	102	107
N	94	100	102	96	100	98	98	102	100	98	100	98	98	104	102	100	292	98	98	104	98	100	102	107
O	94	109	100	100	104	94	100	98	102	96	100	31	100	102	102	100	100	104	102	96	104	104	100	5
P	96	98	94	102	98	90	96	98	102	98	98	100	94	100	98	96	237	100	102	96	100	100	98	3

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

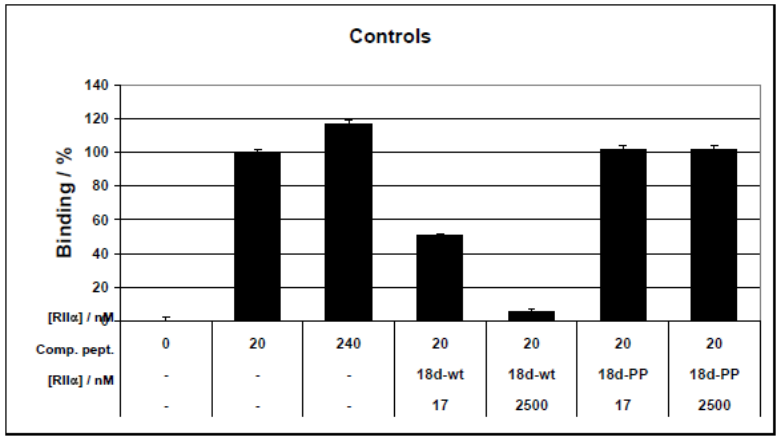


Plate no. 18

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	96	95	99	95	98	99	100	99	99	95	102	98	98	91	96	98	99	98	97	98	100	52	50	98
B	102	97	95	99	101	99	96	99	100	100	101	100	98	100	95	97	96	101	95	100	100	99	53	94
C	99	100	102	103	100	99	99	97	100	101	102	100	112	100	101	98	94	101	101	96	100	97	97	93
D	97	101	98	97	98	99	100	99	101	99	103	99	97	102	103	101	96	99	101	95	102	96	102	100
E	99	96	98	101	94	102	98	99	101	102	103	104	98	101	101	103	102	102	101	100	103	100	107	99
F	99	103	96	103	106	103	96	101	101	101	100	94	102	97	99	102	102	100	102	102	103	102	104	101
G	95	101	104	101	102	103	101	100	106	100	101	101	99	99	99	99	101	99	105	102	163	97	77	55
H	98	97	101	102	104	101	97	103	101	103	100	100	102	100	100	98	105	100	97	100	101	102	76	57
I	99	95	99	99	99	100	99	100	101	231	105	97	101	102	101	100	101	102	104	103	100	102	55	78
J	96	100	102	100	99	94	97	97	99	100	98	97	99	99	100	101	103	102	100	99	101	101	54	79
K	103	98	100	97	99	100	99	97	98	100	101	101	101	102	102	100	101	102	101	103	100	101	102	106
L	98	100	99	102	109	98	95	101	98	101	98	98	97	101	101	97	102	98	104	99	103	101	103	108
M	96	100	99	96	95	96	97	99	101	99	99	99	100	102	100	101	98	101	100	96	101	104	102	100
N	96	99	103	100	98	97	97	98	99	100	101	101	96	99	100	96	102	97	101	98	97	99	102	101
O	99	101	95	102	100	98	98	99	97	98	95	99	98	98	98	101	96	95	99	93	102	101	99	53
P	102	101	99	98	99	99	97	96	101	97	96	101	101	100	99	100	98	97	99	98	99	99	100	55

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 53

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	53	2
10 nM RIIα	99	3
Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =		46
3*Sum of SDs		13.78
3*Sum of SDs/Sum of means		0.09
Z'-factor		**0.91**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	43	42	46	42	45	46	47	46	46	42	49	45	45	38	43	45	46	45	44	45	47	-1	-3	45
B	49	44	42	46	48	46	43	46	47	47	48	47	45	47	42	44	43	48	42	47	47	46	0	41
C	46	47	49	50	47	46	46	44	47	48	49	47	59	47	48	45	41	48	48	43	47	44	44	40
D	44	48	45	44	45	46	47	46	48	46	50	46	44	49	50	48	43	46	48	42	49	43	49	47
E	46	43	45	48	41	49	45	46	48	49	50	51	45	48	48	50	49	49	48	47	50	47	54	46
F	46	50	43	50	53	50	43	48	48	48	47	41	49	44	46	49	49	47	49	49	50	49	51	48
G	42	48	51	48	49	50	48	47	53	47	48	48	46	46	46	46	48	46	52	49	110	44	24	2
H	45	44	48	49	51	48	44	50	48	50	47	47	49	47	47	45	52	47	44	47	48	49	23	4
I	46	42	46	46	46	47	46	47	48	178	52	44	48	49	48	47	48	49	51	50	47	49	2	25
J	43	47	49	47	46	41	44	44	46	47	45	44	46	46	47	48	50	49	47	46	48	48	1	26
K	50	45	47	44	46	47	46	44	45	47	48	48	48	49	49	47	48	49	48	50	47	48	49	53
L	45	47	46	49	56	45	42	48	45	48	45	45	44	48	48	44	49	45	51	46	50	48	50	55
M	43	47	46	43	42	43	44	46	48	46	46	46	47	49	47	48	45	48	47	43	48	51	49	47
N	43	46	50	47	45	44	44	45	46	47	48	48	43	46	47	43	49	44	48	45	44	46	49	48
O	46	48	42	49	47	45	45	46	44	45	42	46	45	45	45	48	43	42	46	40	49	48	46	0
P	49	48	46	45	46	46	44	43	48	44	43	48	48	47	46	47	45	44	46	45	46	46	47	2

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 46

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-6	96	118	53	5	107	107
	1	107	111	50	3	109	107
	1	102	120	55	5	100	87
	5	105	115	57	9	105	102
		100					
		102					
		98					
		89					
Mean	0	100	116	54	5	105	101
SD	4	5	4	3	3	4	9
SEM	2	2	2	1	1	2	5

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	94	92	100	92	98	100	102	100	100	92	107	98	98	83	94	98	100	98	96	98	102	-2	-6	98
B	107	96	92	100	105	100	94	100	102	102	105	102	98	102	92	96	94	105	92	102	102	100	1	89
C	100	102	107	109	102	100	100	96	102	105	107	102	128	102	105	98	89	105	105	94	102	96	96	87
D	96	105	98	96	98	100	102	100	105	100	109	100	96	107	109	105	94	100	105	92	107	94	107	102
E	100	94	98	105	89	107	98	100	105	107	109	111	98	105	105	109	107	107	105	102	109	102	118	100
F	100	109	94	109	115	109	94	105	105	105	102	89	107	96	100	107	107	102	107	107	109	107	113	105
G	92	105	111	105	107	109	105	102	115	102	105	105	100	100	100	100	105	100	113	107	238	96	53	5
H	98	96	105	107	111	105	96	109	105	109	102	102	107	102	102	98	113	102	96	102	105	107	50	9
I	100	92	100	100	100	102	100	102	105	386	113	96	105	107	105	102	105	107	111	109	102	107	5	55
J	94	102	107	102	100	89	96	96	100	102	98	96	100	100	102	105	109	107	102	100	105	105	3	57
K	109	98	102	96	100	102	100	96	98	102	105	105	105	107	107	102	105	107	105	109	102	105	107	116
L	98	102	100	107	122	98	92	105	98	105	98	98	96	105	105	96	107	98	111	100	109	105	109	120
M	94	102	100	94	92	94	96	100	105	100	100	100	102	107	102	105	98	105	102	94	105	111	107	102
N	94	100	109	102	98	96	96	98	100	102	105	105	94	100	102	94	107	96	105	98	96	100	107	105
O	100	105	92	107	102	98	98	100	96	98	92	100	98	98	98	105	94	92	100	87	107	105	100	1
P	107	105	100	98	100	100	96	94	105	96	94	105	105	102	100	102	98	96	100	98	100	100	102	5

Range of Binding / %																	
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

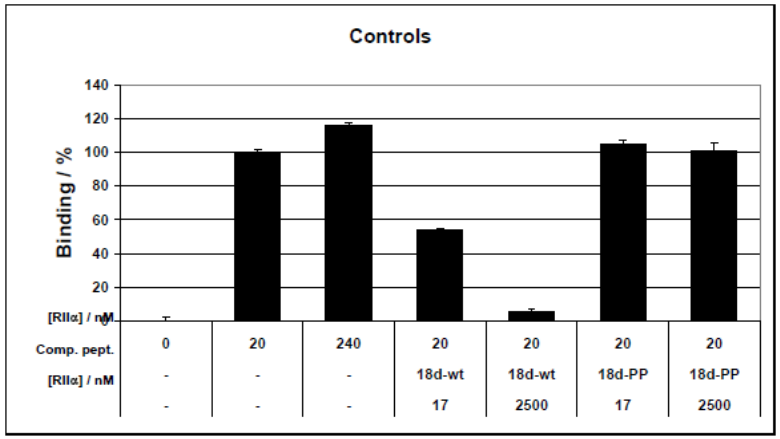


Plate no. 19

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	101	98	101	96	104	102	104	104	103	100	103	103	103	101	100	101	100	101	103	103	101	103	52	100
B	103	97	99	96	104	102	98	100	101	99	105	104	100	104	100	95	95	100	101	103	102	101	52	101
C	104	102	101	103	99	99	103	102	104	104	106	104	101	102	104	105	100	103	104	100	101	105	100	98
D	99	99	99	99	100	101	103	104	98	100	102	104	101	105	103	103	100	101	101	101	102	99	103	103
E	100	98	99	101	98	104	97	99	104	102	103	104	99	104	102	103	105	104	105	98	103	106	108	98
F	100	98	96	99	102	102	99	102	102	100	103	98	101	101	104	104	103	103	102	103	101	104	108	103
G	93	93	102	101	101	104	103	100	101	97	104	103	100	101	101	100	103	102	104	209	105	100	80	53
H	101	96	102	101	102	102	97	102	102	103	100	103	102	102	103	96	104	105	100	100	105	104	80	56
I	97	98	101	110	101	101	102	104	102	104	101	103	103	105	101	102	105	102	105	221	103	103	57	77
J	98	102	100	100	102	98	100	99	102	102	99	101	96	102	99	98	101	103	104	103	102	104	56	76
K	100	101	102	99	101	104	102	103	102	100	103	105	100	104	102	102	102	104	105	104	103	105	103	108
L	98	100	99	102	100	100	98	101	101	99	100	101	101	102	100	101	100	103	138	100	102	101	104	108
M	97	99	102	103	101	98	100	99	100	103	101	104	102	99	103	101	102	101	104	104	105	104	103	101
N	97	101	99	100	103	101	100	101	101	101	103	103	102	107	101	99	103	101	101	101	102	102	101	103
O	98	100	96	100	101	101	102	97	102	102	101	103	101	100	102	101	104	102	105	109	104	102	103	57
P	100	99	98	100	98	97	96	99	100	98	99	101	98	100	101	100	OVER	102	102	104	100	100	100	57

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 55

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	55	3
10 nM RIIα	101	1

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	47
3*Sum of SDs	12.88
3*Sum of SDs/Sum of means	0.08
Z'-factor	**0.92**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	47	44	47	42	50	48	50	50	49	46	49	49	49	47	46	47	46	47	49	49	47	49	-3	46
B	49	43	45	42	50	48	44	46	47	45	51	50	46	50	46	41	41	46	47	49	48	47	-3	47
C	50	48	47	49	45	45	49	48	50	50	52	50	47	48	50	51	46	49	50	46	47	51	46	44
D	45	45	45	45	46	47	49	50	44	46	48	50	47	51	49	49	46	47	47	47	48	45	49	49
E	46	44	45	47	44	50	43	45	50	48	49	50	45	50	48	49	51	50	51	44	49	52	54	44
F	46	44	42	45	48	48	45	48	48	46	49	44	47	47	50	50	49	49	48	49	47	50	54	49
G	39	39	48	47	47	50	49	46	47	43	50	49	46	47	47	46	49	48	50	155	51	46	26	-2
H	47	42	48	47	48	48	43	48	48	49	46	49	48	48	49	42	50	51	46	46	51	50	26	2
I	43	44	47	56	47	47	48	50	48	50	47	49	49	51	47	48	51	48	51	167	49	49	3	23
J	44	48	46	46	48	44	46	45	48	48	45	47	42	48	45	44	47	49	50	49	48	50	2	22
K	46	47	48	45	47	50	48	49	48	46	49	51	46	50	48	48	48	50	51	50	49	51	49	54
L	44	46	45	48	46	46	44	47	47	45	46	47	47	48	46	47	46	49	84	46	48	47	50	54
M	43	45	48	49	47	44	46	45	46	49	47	50	48	45	49	47	48	47	50	50	51	50	49	47
N	43	47	45	46	49	47	46	47	47	47	49	49	48	53	47	45	49	47	47	47	48	48	47	49
O	44	46	42	46	47	47	48	43	48	48	47	49	47	46	48	47	50	48	51	55	50	48	49	3
P	46	45	44	46	44	43	42	45	46	44	45	47	44	46	47	46	####	48	48	50	46	46	46	3

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 47

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-5	97	114	54	5	103	103
	-5	103	114	54	3	106	99
	5	99	114	48	-3	93	93
	5	103	114	46	3	103	103
		103					
		97					
		97					
		99					
Mean	0	100	114	51	2	101	100
SD	6	3	0	4	4	6	5
SEM	3	1	0	2	2	3	3

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	99	93	99	89	106	101	106	106	103	97	103	103	103	99	97	99	97	99	103	103	99	103	-5	97
B	103	91	95	89	106	101	93	97	99	95	108	106	97	106	97	86	86	97	99	103	101	99	-5	99
C	106	101	99	103	95	95	103	101	106	106	110	106	99	101	106	108	97	103	106	97	99	108	97	93
D	95	95	95	95	97	99	103	106	93	97	101	106	99	108	103	103	97	99	99	99	101	95	103	103
E	97	93	95	99	93	106	91	95	106	101	103	106	95	106	101	103	108	106	108	93	103	110	114	93
F	97	93	89	95	101	101	95	101	101	97	103	93	99	99	106	106	103	103	101	103	99	106	114	103
G	82	82	101	99	99	106	103	97	99	91	106	103	97	99	99	97	103	101	106	-38	108	97	54	-3
H	99	89	101	99	101	101	91	101	101	103	97	103	101	101	103	89	106	108	97	97	108	106	54	3
I	91	93	99	118	99	99	101	106	101	106	99	103	103	108	99	101	108	101	108	-158	103	103	5	48
J	93	101	97	97	101	93	97	95	101	101	95	99	89	101	95	93	99	103	106	103	101	106	3	46
K	97	99	101	95	99	106	101	103	101	97	103	108	97	106	101	101	101	106	108	106	103	108	103	114
L	93	97	95	101	97	97	93	99	99	95	97	99	99	101	97	99	97	103	173	97	101	99	106	114
M	91	95	101	103	99	93	97	95	97	103	99	106	101	95	103	99	101	99	106	106	108	106	103	99
N	91	99	95	97	103	99	97	99	99	99	103	103	101	112	99	95	103	99	99	99	101	101	99	103
O	93	97	89	97	99	99	101	91	101	101	99	103	99	97	101	99	106	101	108	116	106	101	103	5
P	97	95	93	97	93	91	89	95	97	93	95	99	93	97	99	97	####	101	101	106	97	97	97	5

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

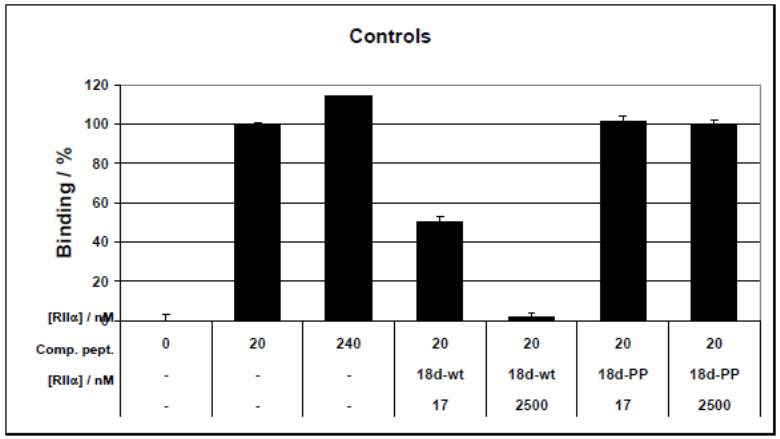


Plate no. 20

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	99	97	100	94	100	102	102	102	100	100	102	99	100	96	96	99	100	96	96	100	99	102	51	100
B	101	100	99	94	101	97	96	98	100	97	103	101	98	102	101	94	99	101	99	99	99	101	52	96
C	100	101	101	102	96	103	100	98	101	102	102	100	100	101	103	101	95	99	101	101	104	100	98	94
D	102	103	97	103	102	102	102	103	266	100	103	101	101	102	103	103	98	103	103	96	100	96	102	101
E	100	98	100	103	96	104	98	101	101	104	105	103	100	101	100	102	99	103	102	100	102	100	105	101
F	100	97	96	102	101	101	100	99	103	102	101	96	101	97	102	101	103	101	99	102	102	101	107	102
G	97	99	103	100	103	102	101	101	98	94	99	102	101	101	100	97	103	101	101	105	101	96	75	56
H	100	98	103	103	101	102	102	101	104	101	98	102	101	101	102	100	102	99	97	105	102	116	78	56
I	97	95	99	107	102	100	99	99	101	100	100	99	101	102	102	101	101	101	101	102	102	101	54	78
J	100	100	100	101	101	95	98	101	101	100	99	101	99	100	101	98	99	99	101	100	103	107	54	77
K	101	102	99	99	101	102	101	97	100	98	100	97	100	101	101	99	99	102	99	103	100	101	100	105
L	100	106	96	102	101	101	100	102	97	100	100	99	99	100	100	101	98	102	102	98	100	109	102	108
M	100	101	100	100	100	99	98	101	104	100	98	101	103	100	101	102	101	103	103	96	103	103	100	103
N	99	99	100	101	99	101	107	100	100	103	102	99	104	99	99	99	101	99	99	104	99	107	101	101
O	101	100	97	103	100	101	99	100	102	101	101	100	101	102	99	99	102	99	99	101	102	104	100	57
P	103	102	99	101	99	101	99	99	102	101	101	102	100	102	100	101	101	98	100	102	99	101	97	56

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 54

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	54	3
10 nM RIIα	100	2

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	46
3*Sum of SDs	16.17
3*Sum of SDs/Sum of means	0.11
Z'-factor	**0.89**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	45	43	46	40	46	48	48	48	46	46	48	45	46	42	42	45	46	42	42	46	45	48	-3	46
B	47	46	45	40	47	43	42	44	46	43	49	47	44	48	47	40	45	47	45	45	45	47	-2	42
C	46	47	47	48	42	49	46	44	47	48	48	46	46	47	49	47	41	45	47	47	50	46	44	40
D	48	49	43	49	48	48	48	49	212	46	49	47	47	48	49	49	44	49	49	42	46	42	48	47
E	46	44	46	49	42	50	44	47	47	50	51	49	46	47	46	48	45	49	48	46	48	46	51	47
F	46	43	42	48	47	47	46	45	49	48	47	42	47	43	48	47	49	47	45	48	48	47	53	48
G	43	45	49	46	49	48	47	47	44	40	45	48	47	47	46	43	49	47	47	51	47	42	21	2
H	46	44	49	49	47	48	48	47	50	47	44	48	47	47	48	46	48	45	43	51	48	62	24	2
I	43	41	45	53	48	46	45	45	47	46	46	45	47	48	48	47	47	47	47	48	48	47	0	24
J	46	46	46	47	47	41	44	47	47	46	45	47	45	46	47	44	45	45	47	46	49	53	0	23
K	47	48	45	45	47	48	47	43	46	44	46	43	46	47	47	45	45	48	45	49	46	47	46	51
L	46	52	42	48	47	47	46	48	43	46	46	45	45	46	46	47	44	48	48	44	46	55	48	54
M	46	47	46	46	46	45	44	47	50	46	44	47	49	46	47	48	47	49	49	42	49	49	46	49
N	45	45	46	47	45	47	53	46	46	49	48	45	50	45	45	45	47	45	45	50	45	53	47	47
O	47	46	43	49	46	47	45	46	48	47	47	46	47	48	45	45	48	45	45	47	48	50	46	3
P	49	48	45	47	45	47	45	45	48	47	47	48	46	48	46	47	47	44	46	48	45	47	43	2

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 46

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-7	96	112	46	0	101	101
	-4	105	116	53	0	105	103
	7	107	118	53	4	103	88
	4	103	112	50	4	105	103
		101					
		94					
		101					
		92					
Mean	0	100	115	50	2	104	99
SD	6	5	3	3	3	2	7
SEM	3	2	2	2	1	1	4

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	99	94	101	88	101	105	105	105	101	101	105	99	101	92	92	99	101	92	92	101	99	105	-7	101
B	103	101	99	88	103	94	92	96	101	94	107	103	96	105	103	88	99	103	99	99	99	103	-4	92
C	101	103	103	105	92	107	101	96	103	105	105	101	101	103	107	103	90	99	103	103	110	101	96	88
D	105	107	94	107	105	105	105	107	262	101	107	103	103	105	107	107	96	107	107	92	101	92	105	103
E	101	96	101	107	92	110	96	103	103	110	112	107	101	103	101	105	99	107	105	101	105	101	112	103
F	101	94	92	105	103	103	101	99	107	105	103	92	103	94	105	103	107	103	99	105	105	103	118	105
G	94	99	107	101	107	105	103	103	96	88	99	105	103	103	101	94	107	103	103	112	103	92	46	4
H	101	96	107	107	103	105	105	103	110	103	96	105	103	103	105	101	105	99	94	112	105	136	53	4
I	94	90	99	116	105	101	99	99	103	101	101	99	103	105	105	103	103	103	103	105	105	103	0	53
J	101	101	101	103	103	90	96	103	103	101	99	103	99	101	103	96	99	99	103	101	107	116	0	50
K	103	105	99	99	103	105	103	94	101	96	101	94	101	103	103	99	99	105	99	107	101	103	101	112
L	101	114	92	105	103	103	101	105	94	101	101	99	99	101	101	103	96	105	105	96	101	121	105	118
M	101	103	101	101	101	99	96	103	110	101	96	103	107	101	103	105	103	107	107	92	107	107	101	107
N	99	99	101	103	99	103	116	101	101	107	105	99	110	99	99	99	103	99	99	110	99	116	103	103
O	103	101	94	107	101	103	99	101	105	103	103	101	103	105	99	99	105	99	99	103	105	110	101	7
P	107	105	99	103	99	103	99	99	105	103	103	105	101	105	101	103	103	96	101	105	99	103	94	4

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

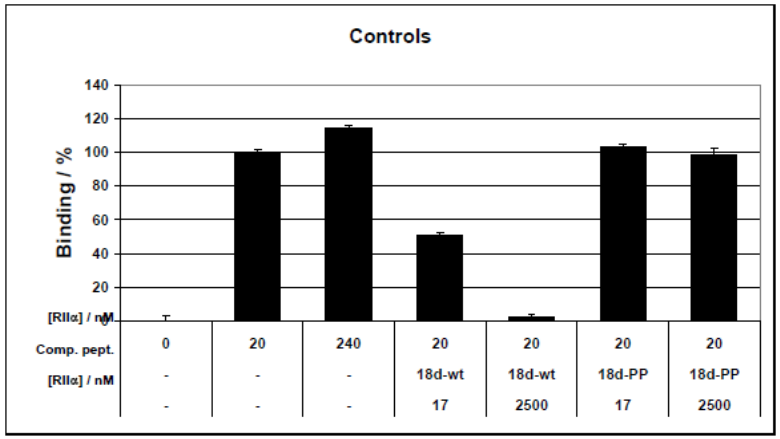


Plate no. 21

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	100	100	100	98	98	101	104	106	101	103	101	100	102	101	102	102	96	104	99	102	99	100	50	98
B	103	96	103	96	102	98	100	98	99	100	103	100	99	124	96	95	98	102	100	99	101	98	50	96
C	103	104	102	103	96	102	97	101	101	105	103	101	103	103	102	102	93	102	101	101	103	100	96	95
D	103	100	92	101	100	100	103	105	271	102	104	102	100	103	103	109	96	101	101	102	99	99	100	105
E	100	101	101	95	97	100	95	107	105	107	99	102	103	103	100	100	101	104	101	102	100	99	106	97
F	103	100	101	100	99	100	106	101	102	105	103	101	101	92	101	101	103	99	100	103	99	101	105	100
G	99	103	104	105	100	100	100	122	100	96	104	102	100	100	99	95	102	105	101	103	102	97	76	55
H	98	99	103	103	98	102	100	108	102	108	100	102	103	100	102	97	103	102	99	102	103	103	77	55
I	99	100	101	100	101	98	100	103	105	107	102	100	101	102	100	101	100	103	103	103	101	99	54	76
J	100	103	102	99	100	97	99	94	122	101	104	97	101	99	100	95	99	101	101	100	101	102	55	77
K	103	103	103	101	101	104	102	103	84	102	102	101	101	104	100	102	101	102	98	102	103	103	106	107
L	100	101	102	103	101	101	106	102	101	103	104	100	99	104	102	101	99	101	105	101	101	103	103	107
M	98	99	100	100	100	101	118	103	101	103	100	103	101	101	101	102	101	102	100	101	104	103	101	100
N	100	101	102	100	102	101	101	100	102	103	102	102	96	102	102	100	101	101	103	99	100	102	101	101
O	98	103	102	102	100	100	99	98	102	100	97	101	102	100	101	102	102	102	102	99	103	102	102	55
P	95	98	99	99	98	100	97	99	101	98	100	99	99	100	98	98	101	100	100	100	100	99	100	52

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 52

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	52	2
10 nM RIIα	99	2

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	47
3*Sum of SDs	13.78
3*Sum of SDs/Sum of means	0.09
Z'-factor	**0.91**

Subtraction of background (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	48	48	48	46	46	49	52	54	49	51	49	48	50	49	50	50	44	52	47	50	47	48	-2	46
B	51	44	51	44	50	46	48	46	47	48	51	48	47	72	44	43	46	50	48	47	49	46	-2	44
C	51	52	50	51	44	50	45	49	49	53	51	49	51	51	50	50	41	50	49	49	51	48	44	43
D	51	48	40	49	48	48	51	53	219	50	52	50	48	51	51	57	44	49	49	50	47	47	48	53
E	48	49	49	43	45	48	43	55	53	55	47	50	51	51	48	48	49	52	49	50	48	47	54	45
F	51	48	49	48	47	48	54	49	50	53	51	49	49	40	49	49	51	47	48	51	47	49	53	48
G	47	51	52	53	48	48	48	70	48	44	52	50	48	48	47	43	50	53	49	51	50	45	24	3
H	46	47	51	51	46	50	48	56	50	56	48	50	51	48	50	45	51	50	47	50	51	51	25	3
I	47	48	49	48	49	46	48	51	53	55	50	48	49	50	48	49	48	51	51	51	49	47	2	24
J	48	51	50	47	48	45	47	42	70	49	52	45	49	47	48	43	47	49	49	48	49	50	3	25
K	51	51	51	49	49	52	50	51	32	50	50	49	49	52	48	50	49	50	46	50	51	51	54	55
L	48	49	50	51	49	49	54	50	49	51	52	48	47	52	50	49	47	49	53	49	49	51	51	55
M	46	47	48	48	48	49	66	51	49	51	48	51	49	49	49	50	49	50	48	49	52	51	49	48
N	48	49	50	48	50	49	49	48	50	51	50	50	44	50	50	48	49	49	51	47	48	50	49	49
O	46	51	50	50	48	48	47	46	50	48	45	49	50	48	49	50	50	50	50	47	51	50	50	3
P	43	46	47	47	46	48	45	47	49	46	48	47	47	48	46	46	49	48	48	48	48	47	48	0

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 47

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-4	93	115	51	5	115	104
	-4	102	112	53	7	108	104
	7	102	117	51	7	96	91
	1	104	117	53	7	102	112
		106					
		102					
		98					
		93					
Mean	0	100	115	52	6	105	103
SD	5	5	2	1	1	8	9
SEM	2	2	1	1	1	4	4

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	102	102	102	98	98	104	110	115	104	108	104	102	106	104	106	106	93	110	100	106	100	102	-4	98
B	108	93	108	93	106	98	102	98	100	102	108	102	100	153	93	91	98	106	102	100	104	98	-4	93
C	108	110	106	108	93	106	96	104	104	112	108	104	108	108	106	106	87	106	104	104	108	102	93	91
D	108	102	85	104	102	102	108	112	463	106	110	106	102	108	108	121	93	104	104	106	100	100	102	112
E	102	104	104	91	96	102	91	117	112	117	100	106	108	108	102	102	104	110	104	106	102	100	115	96
F	108	102	104	102	100	102	115	104	106	112	108	104	104	85	104	104	108	100	102	108	100	104	112	102
G	100	108	110	112	102	102	102	148	102	93	110	106	102	102	100	91	106	112	104	108	106	96	51	7
H	98	100	108	108	98	106	102	119	106	119	102	106	108	102	106	96	108	106	100	106	108	108	53	7
I	100	102	104	102	104	98	102	108	112	117	106	102	104	106	102	104	102	108	108	108	104	100	5	51
J	102	108	106	100	102	96	100	89	148	104	110	96	104	100	102	91	100	104	104	102	104	106	7	53
K	108	108	108	104	104	110	106	108	68	106	106	104	104	110	102	106	104	106	98	106	108	108	115	117
L	102	104	106	108	104	104	115	106	104	108	110	102	100	110	106	104	100	104	112	104	104	108	108	117
M	98	100	102	102	102	104	140	108	104	108	102	108	104	104	104	106	104	106	102	104	110	108	104	102
N	102	104	106	102	106	104	104	102	106	108	106	106	93	106	106	102	104	104	108	100	102	106	104	104
O	98	108	106	106	102	102	100	98	106	102	96	104	106	102	104	106	106	106	106	100	108	106	106	7
P	91	98	100	100	98	102	96	100	104	98	102	100	100	102	98	98	104	102	102	102	102	100	102	1

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition				

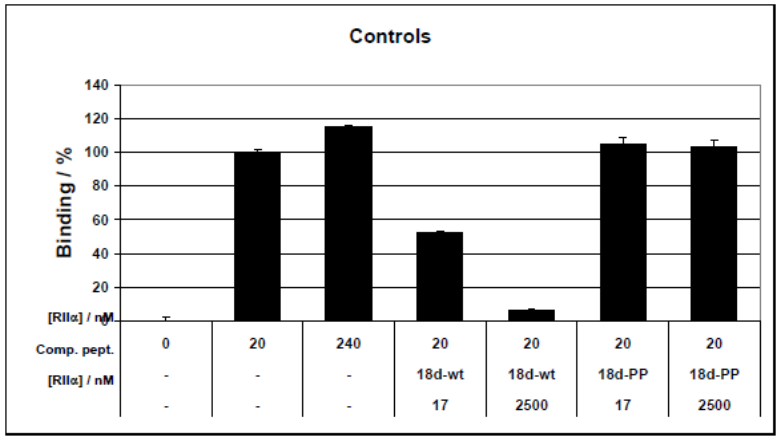


Plate no. 22

Raw Data (Anisotropy)

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	101	100	101	99	102	103	100	104	102	101	105	102	102	109	101	104	100	245	99	104	100	102	50	98
B	104	99	100	100	105	99	102	99	100	103	103	104	98	104	99	97	98	101	102	99	101	99	53	98
C	103	103	101	103	97	104	101	101	104	106	106	102	105	101	103	105	98	107	101	101	101	103	99	96
D	101	101	99	102	102	99	104	102	107	102	104	103	101	103	104	105	96	104	102	100	98	98	101	104
E	99	99	102	100	96	101	92	102	102	103	101	100	101	OVER	99	107	100	103	103	102	103	99	105	98
F	102	102	97	102	103	102	104	100	101	100	101	102	102	100	103	102	101	103	104	101	102	99	108	102
G	100	101	103	101	101	101	102	102	101	97	102	102	96	107	96	107	101	99	102	101	103	98	73	55
H	104	101	103	103	101	100	102	102	103	101	97	103	105	100	102	98	102	103	96	100	103	103	79	55
I	100	100	104	99	101	98	99	100	103	103	102	121	94	117	136	106	102	103	104	103	100	101	55	77
J	100	102	101	101	107	97	100	95	101	101	99	95	99	97	96	96	99	99	101	99	100	106	55	79
K	100	102	103	102	99	102	100	101	102	99	104	101	107	112	101	111	101	103	100	99	100	185	103	107
L	98	112	101	102	100	98	99	118	100	100	103	100	101	104	97	99	94	100	103	97	100	100	102	108
M	100	97	99	102	99	98	101	100	98	102	98	103	106	101	102	109	100	103	100	100	103	105	101	100
N	98	101	102	99	98	98	96	122	100	100	102	98	93	98	99	99	101	99	99	96	99	101	101	102
O	98	101	100	100	100	100	100	99	101	99	101	99	108	104	101	103	100	103	100	100	100	106	98	53
P	96	101	100	99	99	98	99	99	102	98	98	98	135	99	99	98	97	101	98	101	100	99	100	54

Mean of background wells (0 nM RIIα; A23,B23,O24,P24) = 53

Calculation of z'-Factor (from raw data)

	Mean	SD
0 nM RIIα	53	2
10 nM RIIα	100	2

Difference Mean (10 nM RIIα) - Mean (0 nM RIIα) =	47
3*Sum of SDs	9.73
3*Sum of SDs/Sum of means	0.06
Z'-factor	**0.94**

Subtraction of background (Anisotropy)

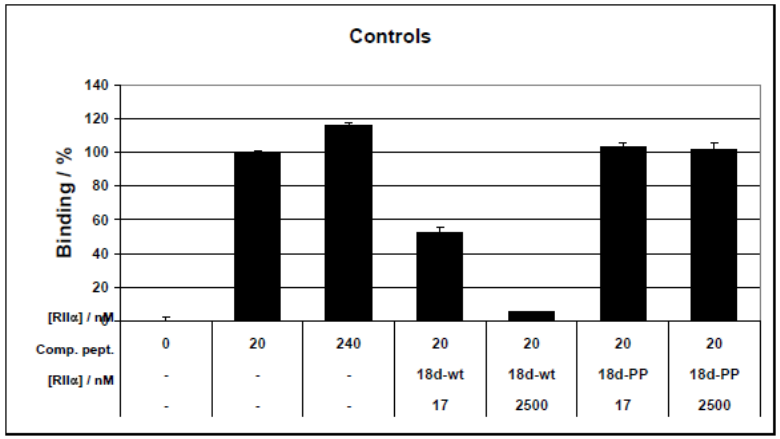
<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	49	48	49	47	50	51	48	52	50	49	53	50	50	57	49	52	48	193	47	52	48	50	-3	46
B	52	47	48	48	53	47	50	47	48	51	51	52	46	52	47	45	46	49	50	47	49	47	1	46
C	51	51	49	51	45	52	49	49	52	54	54	50	53	49	51	53	46	55	49	49	49	51	47	44
D	49	49	47	50	50	47	52	50	55	50	52	51	49	51	52	53	44	52	50	48	46	46	49	52
E	47	47	50	48	44	49	40	50	50	51	49	48	49	#####	47	55	48	51	51	50	51	47	53	46
F	50	50	45	50	51	50	52	48	49	48	49	50	50	48	51	50	49	51	52	49	50	47	56	50
G	48	49	51	49	49	49	50	50	49	45	50	50	44	55	44	55	49	47	50	49	51	46	21	3
H	52	49	51	51	49	48	50	50	51	49	45	51	53	48	50	46	50	51	44	48	51	51	27	3
I	48	48	52	47	49	46	47	48	51	51	50	69	42	65	84	54	50	51	52	51	48	49	3	25
J	48	50	49	49	55	45	48	43	49	49	47	43	47	45	44	44	47	47	49	47	48	54	3	27
K	48	50	51	50	47	50	48	49	50	47	52	49	55	60	49	59	49	51	48	47	48	133	51	55
L	46	60	49	50	48	46	47	66	48	48	51	48	49	52	45	47	42	48	51	45	48	48	50	56
M	48	45	47	50	47	46	49	48	46	50	46	51	54	49	50	57	48	51	48	48	51	53	49	48
N	46	49	50	47	46	46	44	70	48	48	50	46	41	46	47	47	49	47	47	44	47	49	49	50
O	46	49	48	48	48	48	48	47	49	47	49	47	56	52	49	51	48	51	48	48	48	54	46	1
P	44	49	48	47	47	46	47	47	50	46	46	46	83	47	47	46	45	49	46	49	48	47	48	2

Mean of 10 nM RIIa controls (set to 100 %; C23,D23,O23,P23,A24,B24,M24,N24) = 47

Controls (from % table)

[Competitive peptide] / nM	-	-	-	17	2500	17	2500
Competitive peptide	-	-	-	18d-wt	18d-wt	18d-PP	18d-PP
[RIIα] / nM	0	20	240	20	20	20	20
Binding / %	-5	99	112	44	5	107	103
	1	103	118	56	5	105	103
	1	101	118	52	5	97	93
	3	105	116	56	5	105	110
		97					
		101					
		97					
		97					
Mean	0	100	116	52	5	104	102
SD	4	3	3	6	0	5	7
SEM	2	1	2	3	0	2	4

Conversion in binding / %

<>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	103	101	103	99	105	107	101	110	105	103	112	105	105	120	103	110	101	410	99	110	101	105	-5	97
B	110	99	101	101	112	99	105	99	101	107	107	110	97	110	99	95	97	103	105	99	103	99	1	97
C	107	107	103	107	95	110	103	103	110	114	114	105	112	103	107	112	97	116	103	103	103	107	99	93
D	103	103	99	105	105	99	110	105	116	105	110	107	103	107	110	112	93	110	105	101	97	97	103	110
E	99	99	105	101	93	103	84	105	105	107	103	101	103	#####	99	116	101	107	107	105	107	99	112	97
F	105	105	95	105	107	105	110	101	103	101	103	105	105	101	107	105	103	107	110	103	105	99	118	105
G	101	103	107	103	103	103	105	105	103	95	105	105	93	116	93	116	103	99	105	103	107	97	44	5
H	110	103	107	107	103	101	105	105	107	103	95	107	112	101	105	97	105	107	93	101	107	107	56	5
I	101	101	110	99	103	97	99	101	107	107	105	146	88	137	178	114	105	107	110	107	101	103	5	52
J	101	105	103	103	116	95	101	90	103	103	99	90	99	95	93	93	99	99	103	99	101	114	5	56
K	101	105	107	105	99	105	101	103	105	99	110	103	116	127	103	124	103	107	101	99	101	283	107	116
L	97	127	103	105	101	97	99	139	101	101	107	101	103	110	95	99	88	101	107	95	101	101	105	118
M	101	95	99	105	99	97	103	101	97	105	97	107	114	103	105	120	101	107	101	101	107	112	103	101
N	97	103	105	99	97	97	93	148	101	101	105	97	86	97	99	99	103	99	99	93	99	103	103	105
O	97	103	101	101	101	101	101	99	103	99	103	99	118	110	103	107	101	107	101	101	101	114	97	1
P	93	103	101	99	99	97	99	99	105	97	97	97	178	99	99	97	95	103	97	103	101	99	101	3

Range of Binding / %																
From	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
To	500	150	140	129	119	109	99	89	79	69	59	49	39	29	19	9
Colour																
	enhanced signal				no inhibition							strong inhbition