

10. Appendix

10.1. Tables of homing molecules

Table XV. Chemoattractants, synonyms and their receptors

<i>Chemokine</i>	<i>Systematic name</i>	<i>Synonym</i>	<i>Receptors</i>
BLC	CXCL13	B cell-attracting chemokine-1	CXCR5
		Chemerin	ChemR23
CTACK (ALP/ILC/Eskine)	CCL27	Cutaneous T cell attracting chemokine	CCR10
ELC (MIP-3β/exodus-3)	CCL19	EBI (EBV-induced gene) 1 ligand chemokine	CCR7
FKN	CX3CL1	Fractalkine	CX3CR1
IP-10 (CRG-2)	CXCL10	γ -interferon-induced protein	CXCR3
I-TAC	CXCL11	Interferon-inducible T-cell alpha chemoattractant	CXCR3
MIG	CXCL9	Monokine induced by γ -interferon	CXCR3
MIP-1α	CCL3	Macrophage inflammatory protein-1 α	CCR1, CCR5
MIP-1β	CCL4	Macrophage inflammatory protein-1 β	CCR5
MIP-2α	CXCL2	Macrophage inflammatory protein-2 α	CXCR2
MIP-2β	CXCL3	Macrophage inflammatory protein-2 β	CXCR1
MIP-3α (LARC)	CCL20	Macrophage inflammatory protein-3 α	CCR6
MCP-1	CCL2	Monocyte chemoattractant protein	CCR2
PF-4	CXCL4	Platelet-factor 4	CXCR3
RANTES	CCL5	Regulated on activation normal T cell expressed and secreted	CCR1, CCR3, CCR5
SLC (TCA-4/ 6Ckine)	CCL21	Secondary lymphoid tissue chemokine	CCR7

TARC (ABCD-2)	CCL17	Thymus and activation-regulated chemokine	CCR4
TECK	CCL25	Thymus-expressed chemokine	CCR9
XCL1	XCL1	Lymphotactin	XCR1

(partially abducted from Chemokine/Chemokine Receptor Nomenclature, 2001, *J. Leukoc. Biol.* 70: 465-66).

Table XVI. Selectins and their ligands

<i>Surface molecule</i>	<i>Synonym</i>	<i>Ligands</i>
CD62L	L-selectin	PNAd (GlyCAM-1, CD34, podocalyxin, sgp200), MAdCAM-1, PSGL-1, E-selectin
CD62P	P-selectin	PSGL-1, PNAd
CD62E	E-selectin	PSGL-1, CLA, sLe ^x , ESL-1, L-selectin

Table XVII. Integrins and their ligands

<i>Surface molecule</i>	<i>Synonym</i>	<i>Ligands</i>
$\alpha_L\beta_2$	LFA-1, CD11aCD18	ICAM-1, 2
$\alpha_M\beta_2$	Mac-1, CD11bCD18	ICAM-1
$\alpha_4\beta_7$	LPAM-1	MAdCAM-1, fibronectin, (VCAM-1)
$\alpha_4\beta_1$	VLA-4	fibronectin, VCAM-1
$\alpha_5\beta_1$	VLA-5	fibronectin

Tables were partially abducted from [247].

Abbreviations used: CLA, cutaneous lymphocyte antigen; ESL-1: E-selectin ligand-1; GlyCAM-1, glycosylation-dependent cell adhesion molecule-1; ICAM, intercellular CAM; LFA-1, leukocyte function-associated antigen-1; Mac-1, macrophage antigen-1; MAdCAM-1, mucosal addressin CAM-1; PSGL-1, P-selectin glycoprotein ligand-1; PNAd, peripheral node addressin; sgp200, sialylated glycoprotein of 200 kDa; sLe^x: sialyl Lewis^x; VCAM, vascular CAM; VLA-4, very late antigen-4

Table XVIII. Basal change of gene expression in pDCs cultured in medium.

Fold differences of genes expressed in pDC cultured in media for 4 h was calculated as the ratio of replicate intensity at 4 h to the intensity at 1 h. Negative numbers represent a decrease of an expression value at medium 4 h compared to medium 1 h (downregulation).

Symbol	Common gene name	Genebank accession number	medium 4 h vs. medium 1 h fold difference
<i>Chemokine/ chemokine receptor</i>			
Ccl6	chemokine (C-C motif) ligand 6	BC002073	-5.3
<i>Surface molecule with immune function</i>			
Clecsf8	C-type lectin, superfamily member 8	NM_010819	11.2
Procr	protein C receptor, endothelial	NM_011171	7.8
Clecsf9	C-type lectin, superfamily member 9	NM_019948	5.3
Gp49b	glycoprotein 49 B	U05264	4.9
Mox2	antigen identified by monoclonal antibody MRC OX-2	AF004023	3.7
Cd8a	CD8 antigen, alpha chain	M12825	2.8
Fpr1	formyl peptide receptor 1	NM_013521	2.6
Tlr7	Toll-like receptor 7	AI604175	-2.9
Il17r	interleukin 17 receptor	AK010040	-2.6
<i>Signal transduction</i>			
Syk	spleen tyrosine kinase	U36776	-5.7
Dusp1	dual specificity phosphatase 1	NM_013642	-4.6
Dusp6	dual specificity phosphatase 6	NM_026268	-4.1
<i>Immune regulatory function</i>			
Hmox1	heme oxygenase (decycling) 1	NM_010442	8.9
Irg1	immunoresponsive gene 1	L38281	5.9
Cdkn1a	cyclin-dependent kinase inhibitor 1A (P21)	AK007630	3.4
<i>Survival and apoptosis</i>			
Axud1	AXIN1 up-regulated 1	BG070296	-3.3
<i>Transcription factor and regulation of transcription</i>			
Basp1	brain abundant, membrane attached signal protein 1	AK011545	4
Dsip1	delta sleep inducing peptide, immunoreactor	AF201289	-13.2
Fos	FBJ osteosarcoma oncogene	AV026617	-9.6
Irf4	interferon regulatory factor 4	U34307	-7.4
Per2	period homolog 2 (Drosophila)	AF035830	-6.4
Spred2	sprouty protein with EVH-1 domain 2, related sequence	AV229054	-6.2
Arid5a	RIKEN cDNA D430024K22 gene	BC027152	-3.8
Jund1	Jun proto-oncogene related gene d1	NM_010592	-3.3

Table XIX. Upregulation of PR8-specific genes in pDCs.

Fold induction of genes upregulated in pDC stimulated with PR8 virus and CpG 1826 was calculated as the ratio of the replicate intensity at 4 h to the average intensity of the expression in medium at 4 h. PR8/CpG represents the ratio of fold values from PR8 to CpG-stimulated pDCs.

Symbol	Common gene name	Gene accession number	PR8 vs. medium	CpG vs. medium 4 h	PR8/CpG
<i>Cytokine/Cytokine receptor</i>					
Ifna4	interferon alpha family, gene 4	NM_010504	147.3	17.2	9
Ifna13	interferon alpha family, gene 13	NM_008336	42.1	5.4	8
Ifna9	interferon alpha family, gene 9	NM_010507	26.7	3.9	7
Ifna5	interferon alpha family, gene 5	NM_010505	98.9	16.3	6
Ifna1	interferon alpha family, gene 1	NM_010502	36.8	7.5	5
Ifna2	interferon alpha family, gene 2	NM_008335	132.1	36.7	4
<i>Chemokine/Chemokine receptor</i>					
Cxcl9	chemokine (C-X-C motif) ligand 9	NM_008599	175.2	56.0	3
Cxcl11	chemokine (C-X-C motif) ligand 11	NM_019494	52.7	17.6	3
<i>Surface molecule with immune function</i>					
Ctla2b	trophoblast specific protein beta	BG064656	5	1.1	5
A330042I21Rik	Tnfsf10, Trail	BB187486	25.1	8.3	3
Clecsf10	C-type lectin, superfamily member 10	NM_020001	5.6	1.9	3
Tlr3	Toll-like receptor 3	NM_126166	4	1.6	3
<i>Signal transduction</i>					
Tyki	thymidylate kinase family LPS-inducible member	AK004595	19.1	3.1	6
Akap12	A kinase (PRKA) anchor protein (gravin) 12	NM_031185	5.7	0.9	6
A930026L03Rik	PPM1k, proteinphosphatase K	AI482429	9.7	3.2	3
Pkib	protein kinase inhibitor beta, cAMP dependent, testis specific	AV047342	5	2	3
Net1	neuroepithelial cell transforming gene 1	NM_019671	3.1	1.2	3
Als2	amyotrophic lateral sclerosis 2 (juvenile) homolog (human)	AB053307	3.1	0.9	3
<i>Transcription factor and regulation of transcription</i>					
Asb5	ankyrin repeat and SOCs box-containing protein 5	NM_029569	10.9	3.1	4
Keap1	kelch-like ECH-associated protein 1	AW764104	4.2	1.1	4
Socs1	suppressor of cytokine signaling 1	AB000710	11.7	3.9	3
A730095J18Rik	zinc finger protein, subfamily 1A, 2 (Helios)	BB319935	5.8	1.7	3
Mllt3	myeloid/lymphoid or mixed lineage-leukemia translocation to 3 homolog	AK011386	5.1	1.6	3
Irf2	interferon regulatory factor 2	NM_008391	3.8	1.9	2
<i>Survival and apoptosis</i>					
Casp3	caspase 3	D86352	6.1	2	3
<i>Cytoskeleton</i>					
Myh10	myosin heavy chain 10, non-muscle	BQ176159	5.3	0.6	9
Cdh1	cadherin 1	NM_009864	2.4	0.3	8
Tuba8	tubulin, alpha 8	NM_017379	6.8	1.6	4
Arhgap6	Rho GTPase activating protein 6	AF177664	3	0.9	3
Sdc3	syndecan 3	BB528350	2.7	0.9	3
<i>Others</i>					
Sct	Secretin	NM_011328	12.5	1.6	8
Arhgef10	ceroid-lipofuscinosis, neuronal 8	AV345051	2.8	0.4	7
Plod2	procollagen lysine, 2-oxoglutarate 5-dioxygenase 2	BC021352	4.4	0.9	5
Slf5	schlafen 5	BB198799	36.8	8.5	4
Evi3	ecotropic viral integration site 3	BC021376	4.1	1	4
Herc3	RIKEN cDNA 1110020M21 gene	BM239854	3.8	1	4
Ifi203	interferon activated gene 203	BC008167	11.2	3.6	3
Siat8a	sialyltransferase 8 (alpha-2, 8-sialyltransferase) A	NM_011374	4.8	1.9	3

Table XX. Downregulation of PR8-specific genes

Negative numbers represent fold decrease of gene transcripts in pDC stimulated with PR8 virus for 4 h calculated as the ratio of the replicate intensity to the average intensity in medium at 4 h. PR8/CpG represents the ratio of fold values from PR8 to CpG-stimulated pDCs.

Symbol	Common gene name	Genebank accession	PR8 vs. medium 4 h	CpG vs. medium	PR8/CpG
<i>Surface molecule with immune function</i>					
C1qr1	complement component 1, q subcomponent, receptor 1	AV319144	-3.9	-1.3	3
Btla	B and T lymphocyte associated	BM240873	-2.1	1	2
<i>Signal transduction</i>					
Ppm1a	protein phosphatase 1A, alpha isoform	C85630	-4.4	-1.6	3
Map3k4	mitogen activated protein kinase kinase kinase 4	AV079128	-3.4	-1.7	2
<i>Transcription factor and regulation of transcription</i>					
Asxl	additional sex combs like 1	BE956516	-5.4	-1.6	3
<i>Others</i>					
Arrdc3	expressed sequence AI450344	BG072824	-12.6	-2.2	6
Ebi2	Epstein-Barr virus induced gene 2	BM242490	-4.3	0.8	5

Table XXI. Upregulation of genes in pDCs specific for stimulation with CpG 1826

Fold induction of gene transcripts in pDC stimulated with CpG 1826 for 4 h calculated as the ratio of the replicate intensity to the average intensity in medium at 4 h. CpG/PR8 represents the ratio of fold values from CpG- to PR8-stimulated pDCs.

Symbol	Common gene name	Genebank accession	CpG vs. medium	PR8 vs. medium 4 h	CpG/PR8
<i>Cytokine/cytokine receptor</i>					
Il12b	interleukin 12b	AF128214	745	33	23
Ebi3	Epstein-Barr virus induced gene 3	NM_015766	34	3	11
Il1rn	interleukin 1 receptor antagonist	M57525	100	10	11
Il6	interleukin 6	NM_031168	1065	136	8
Il1a	interleukin 1 alpha	BC003727	9	1	8
Il1b	interleukin 1 beta	BC011437	19	3	7
Lta	lymphotoxin A	NM_010735	508	104	5
Il10	interleukin 10	NM_010548	4	1	4
<i>Chemokine/ chemokine receptor</i>					
Cxcl2	chemokine (C-X-C motif) ligand 2	NM_009140	61	6	11
Ccr7	chemokine (C-C motif) receptor 7	BB204380	94	19	5
Ccl5	chemokine (C-C motif) ligand 5	NM_013653	30	9	4
Cxcl16	chemokine (C-X-C motif) ligand 16	BC019961	11	4	3
Ccl9	chemokine (C-C motif) ligand 9	AF128196	3	1	3
Ccl1	chemokine (C-C motif) ligand 1	NM_011329	2	1	2
<i>Surface molecule with immune function</i>					
Sema6d	semaphorin 6D	BF536780	22	2	14
Il1rn	interleukin 1 receptor antagonist	M57525	17	1	14
Cd8a	CD8 antigen, alpha chain	BB030365	65	5	13
C3ar1	complement component 3a receptor 1	BB333624	14	1	10
Cd72	CD72 antigen	BC003824	9	1	8
Plxnd1	plexin D1	BC019530	13	2	6
Lrmp	lymphoid-restricted membrane protein	NM_008511	3	1	5
Cd80	CD80 antigen	AK019867	9	2	5
Clecsf6	C-type lectin, superfamily member 6	NM_011999	3	1	4
Cd33	CD33 antigen	NM_021293	12	3	4
Tlr1	Toll-like receptor 1	AF316985	10	3	4
Tnfsf9	4-1BBL, tumor necrosis factor (ligand) superfamily, member 9	NM_009404	23	7	4
Tnfrsf5	CD40, tumor necrosis factor receptor superfamily, member 5	BB220422	148	49	3
Ptger4	prostaglandin E receptor 4 (subtype EP4)	BC011193	5	1	3
Plxnc1	plexin C1	BB476707	4	2	2
Gpr56	G protein-coupled receptor 56	NM_018882	4	1	3
Ctla4	cytotoxic T-lymphocyte-associated protein 4	NM_009843	4	1	3
Il1rl2	interleukin 1 receptor-like 2	BG073776	3	1	3
Igsf8	immunoglobulin superfamily, member 8	AF411055	3	1	2
<i>Signal transduction</i>					
Adrbk2	RIKEN cDNA 4833444A01 gene	BG073639	8	2	5
Dusp10	dual specificity phosphatase 10	NM_022019	11	2	5
Swap70	SWAP complex protein	AK019882	36	7	5
Cblb	Casitas B-lineage lymphoma b	AW545867	5	1	4
Malt1	mucosa associated lymphoid tissue lymphoma translocation gene 1	BB296321	4	1	4
Rhob	ras homolog gene family, member B	BC018275	4	1	4
Rhoe	ras homolog gene family, member E	BC009002	8	2	4
Traf1	Tnf receptor-associated factor 1	BG064103	63	19	3
Dusp1	dual specificity phosphatase 1	NM_013642	6	2	3
Mona	monocytic adaptor	NM_010815	4	2	3
Pde4b	phosphodiesterase 4B, cAMP specific	BM246564	3	1	3
Dusp9	dual specificity phosphatase 9	AV295798	3	2	2
Dusp16	dual specificity phosphatase 16	NM_130447	3	1	2
Map3k5	mitogen activated protein kinase kinase kinase 5	AV377656	3	1	2

Table XXI. continued

Symbol	Common gene name	Genebank accession number	CpG vs. medium 4 h	PR8 vs. medium	CpG/PR8
<i>Transcription factor and regulation of transcription</i>					
Myc	myelocytomatosis oncogene	BC006728	23	2	15
BC031441	zinc finger protein 119	BF225404	5	1	7
Batf	basic leucine zipper transcription factor, ATF-like	NM_016767	10	2	6
C2ta	class II transactivator	AF042158	6	1	6
AA408868	Mail	AB026551	50	10	5
Ets2	E26 avian leukemia oncogene 2, 3' domain	BC005486	8	2	5
Myef2	myelin basic protein expression factor 2, repressor	U13262	4	1	5
Phf15	PHD finger protein 15	BI663145	5	1	5
Socs2	suppressor of cytokine signaling 2	NM_007706	9	2	4
Jun	Jun oncogene	NM_010591	12	3	4
Cited2	Cbp/p300-interacting transactivator, domain 2	NM_010828	64	15	4
Tcf7l2	transcription factor 7-like 2, T-cell specific, HMG-box	BB175494	5	2	4
Spic	Spi-C transcription factor (Spi-1/PU.1 related)	NM_011461	9	2	4
Socs3	suppressor of cytokine signaling 3	NM_007707	4	1	4
Maff	v-maf musculoaponeurotic fibrosarcoma oncogene family, protein F	BC022952	3	1	4
Nfkbia	nuclear factor of kappa light chain gene enhancer in B-cells inhibitor, alpha	AI462015	4	2	3
Jarid2	jumonji	NM_021878	4	1	3
Atf6	RIKEN cDNA 9130025P16 gene	BB129063	3	1	3
Zfp295	zinc finger protein 295	BC027135	3	1	3
<i>Survival and apoptosis</i>					
Bcl2l1	Bcl2-like	NM_009743	14	2	9
Bcl2l11	BCL2-like 11 (apoptosis facilitator)	AF032460	11	2	6
Cflar	CASP8 and FADD-like apoptosis regulator	NM_009805	13	3	4
Plagl2	pleiomorphic adenoma gene-like 2	NM_018807	3	1	3
Bcl6	B-cell leukemia/lymphoma 6	U41465	2	1	3
<i>Migration and adhesion</i>					
Lad1	ladinin	NM_133664	422	18	24
Pard3	par-3 (partitioning defective 3) homolog (C. elegans)	AW543460	10	1	10
Alcam	activated leukocyte cell adhesion molecule	AV315205	17	3	5
Pecam	platelet/endothelial cell adhesion molecule	NM_008816	5	2	4
Cd44	CD44 antigen	X66083	5	2	3
Pxn	paxillin	BB530368	2	1	3
<i>Cytoskeleton</i>					
Tnnt2	troponin T2, cardiac	NM_011619	15	1	13
Tnni1	troponin I, skeletal, slow 1	NM_021467	14	1	11
<i>Others</i>					
Serpib2	serine (or cysteine) proteinase inhibitor, clade B, member 2	NM_011111	62	1	58
Trex1	three prime repair exonuclease 1	AF140709	208	6	38
Adm	Adrenomedullin	AV378441	92	4	24
Mgll	monoglyceride lipase	BI411560	20	1	23
Lipg	lipase, endothelial	BC020991	40	2	23
Slc7a3	solute carrier family 7 (cationic amino acid transporter, y+ system), member 3	NM_007515	78	4	20
Ptgs2	prostaglandin-endoperoxide synthase 2	M94967	127	8	16
Sh3bp5	calpain 7	BQ179335	7	1	13
Cdk5r	cyclin-dependent kinase 5, regulatory subunit (p35)	BB177836	22	2	13
Il4i1	interleukin 4 induced 1	NM_010215	48	5	9
Serpib1b	serine (or cysteine) proteinase inhibitor, clade B, member 1b	AF426025	11	1	9
Ccnd2	cyclin D2	NM_009829	37	5	7
Senp6	SUMO-1-specific protease	BG066990	7	2	5
Serpib6b	serine (or cysteine) proteinase inhibitor, clade B, member 6b	NM_011454	6	2	4
Gpr109b	interferon-gamma inducible gene, Puma-g	NM_030701	5	1	4

Table XXII. Downregulation of genes specific for stimulation with CpG 1826

Negative numbers represent fold decrease of gene transcripts in pDC stimulated with CpG 1826 for 4 h calculated as the ratio of the replicate intensity to the average intensity in medium at 4 h. CpG/PR8 represents the ratio of fold values from CpG- to PR8-stimulated pDCs.

Symbol	Common gene name	Genebank accession number	CpG vs. medium 4 h	PR8 vs. medium 4 h	CpG/PR8
<i>Cytokine/cytokine receptor</i>					
Il21r	interleukin 21 receptor	AB049137	-2.9	0.6	5
Il16	interleukin 16	BC026894	-25.1	-7.1	4
Il4ra	interleukin 4 receptor, alpha	NM_010557	-3.4	-1.5	2
<i>Chemokine/ chemokine receptor</i>					
1700030P01Rik	chemokine-like receptor 1	AW228687	-20.6	-1.6	13
Cxcr3	chemokine (C-X-C motif) receptor 3	NM_009910	-10.5	-2.2	5
<i>Surface molecule with immune function</i>					
ErbB3	v-erb-b2 erythroblastic leukemia viral oncogene homolog 3	BF140685	-14.1	-1	14
Tnfrsf13c	BAFF receptor	NM_028075	-20	-2.3	9
Plxnb2	plexin B2	NM_138749	-10.2	-1.8	6
Sema4c	semaphorin 4C	BQ032843	-12.3	-1.6	8
Edg6	endothelial differentiation, G-protein-coupled receptor 6	AV081616	-9.5	2.0	5
Ly108	lymphocyte antigen 108	AF248636	-7.0	-1.3	5
Ddr1	discoïdin domain receptor family, member 1	BF225985	-6.2	-1.6	4
Cdh1	cadherin 1	NM_009864	-2.9	2.5	4
Klrd1	killer cell lectin-like receptor, subfamily D, member 1	NM_010654	-11.2	-2.6	4
Cd79b	CD79B antigen	NM_008339	-12.1	-3.9	3
<i>Signal transduction</i>					
Gna15	guanine nucleotide binding protein, alpha 15	NM_010304	-12.4	-1.0	12
Abi3	RIKEN cDNA 2210414K06 gene	AK008928	-15.2	-1.9	8
Rasa3	RAS p21 protein activator 3	NM_009025	-13.2	-1.8	7
Ptp4a3	protein tyrosine phosphatase 4a3	AK014601	-11.7	-1.6	7
Csk	c-src tyrosine kinase	BG094076	-10.8	-2.3	5
<i>Transcription factor and regulation of transcription</i>					
Peli2	pellino 2	BM121149	-23.4	-4.2	6
Tgfb1i4	transforming growth factor beta 1 induced transcript 4	AF201285	-9.2	-1.5	6
Ets1	E26 avian leukemia oncogene 1, 5' domain	BB151715	-16.7	-3.4	5
<i>Survival and apoptosis</i>					
Card11	caspase recruitment domain family, member 11	AV095659	-18.6	-1.6	12
Bcl7a	B-cell CLL/lymphoma 7A	AK014498	-6.5	-1.8	4
<i>Cytoskeleton</i>					
Ablim1	actin-binding LIM protein 1	BG065289	-10.7	1.1	10
Tnni2	troponin I, skeletal, fast 2	NM_009405	-6.6	-1.9	3
<i>Others</i>					
5830437M04Rik	Marlin-1	BB316060	-204.1	-5.8	35
Timp2	tissue inhibitor of metalloproteinase 2	BF168458	-67.5	-2.2	31
Ppfi4	liprin alpha	AK003571	-42.4	-2.6	16
Capn5	calpain 5	BC014767	-8.7	-1.0	9
Trim37	tripartite motif protein 37	BM119247	-5.2	-1.6	3
2900064I19Rik	glutamate receptor, ionotropic, AMPA3 (alpha 3)	BM220576	-5.1	-1.8	3

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