

XIII. Appendix F

Polymerase chain reaction cycling conditions

The following cycling conditions have been used for PCR amplifications described in this study:

- Cycle A – Standard amplification:
 $1 \times (3', 95^\circ\text{C}); 35 \times (30'', 95^\circ\text{C} - 45'', T_a - 1' \text{ per } 1000 \text{ bp amplicon}, T_{\text{DNA polymerase}});$
 $1 \times (7', T_{\text{DNA polymerase}})$
- Cycle B – Mutation analysis of all *hKIAA1202* exons apart from ‘Exon 8/1a’, ‘Exon 8/1b’ and ‘Exon 8/2’: $1 \times (1'30, 96^\circ\text{C}); 3 \times (25'', 96^\circ\text{C} - 45'', 65^\circ\text{C} - 30'', 72^\circ\text{C}); 20 \times (25'', 96^\circ\text{C} - 45'', 60^\circ\text{C} - 30'', 72^\circ\text{C}); 7 \times (25'', 96^\circ\text{C} - 50'', 55^\circ\text{C} - 45'', 72^\circ\text{C}); 10 \times (25'', 96^\circ\text{C} - 1', 55^\circ\text{C} - 1'30'', 72^\circ\text{C}); 1 \times (10', 72^\circ\text{C})$
- Cycle C – Mutation analysis of *hKIAA1202* exons ‘Exon 8/1a’, ‘Exon 8/1b’ and ‘Exon 8/2’: $1 \times (3', 95^\circ\text{C}); 40 \times (20'', 95^\circ\text{C} - 45'', 58.5^\circ\text{C} - 30'', 72^\circ\text{C}); 1 \times (7', 72^\circ\text{C})$
- Cycle D – First-round 5' and 3' RACE:
 $1 \times (3', 95^\circ\text{C} - 5', 75^\circ\text{C} - 2', 50^\circ\text{C} - 5', 72^\circ\text{C}); 5 \times (20'', 94^\circ\text{C} - 1'30'', 72^\circ\text{C}); 5 \times (20'', 94^\circ\text{C} - 45'', 70^\circ\text{C} - 1'30'', 72^\circ\text{C}); 30 \times (20'', 94^\circ\text{C} - 45'', 58^\circ\text{C} - 1'30'', 72^\circ\text{C}); 1 \times (3', 72^\circ\text{C})$
- Cycle E – Suppression PCR:
 $1 \times (3', 95^\circ\text{C}); 25 \times (20'', 94^\circ\text{C} - 45'', 57^\circ\text{C} - 3', 72^\circ\text{C}); 1 \times (7', 72^\circ\text{C})$
- Cycle F – *In vitro* mutagenesis:
 $1 \times (30'', 95^\circ\text{C}); 12 \times (30'', 95^\circ\text{C} - 1', 55^\circ\text{C} - 12'30'', 68^\circ\text{C})$
- Cycle G – DNA sequencing:
 $1 \times (3', 96^\circ\text{C}); 25 \times (10'', 96^\circ\text{C} - 5'', T_a - 4', 60^\circ\text{C})$
- Cycle H – Long-range PCR:
 $1 \times (3', 95^\circ\text{C}); 15 \times (20'', 95^\circ\text{C} - 45'', 56^\circ\text{C} - 1', 68^\circ\text{C}); 20 \times (20'', 95^\circ\text{C} - 45'', 56^\circ\text{C} - 1^*, 68^\circ\text{C}); 1 \times (7', 68^\circ\text{C})$

* +20"/cycle

- Cycle I – Touchdown PCR:
1 × (3', 95°C); 10 × (20", 95°C – 45", 60°C^{*} – 45", 72°C); 30 × (20", 95°C – 45", 55°C – 45", 72°C); 1 × (7', 72°C)
^{*}-0.5°C/cycle
- Cycle J – *hKIAA1202* expression analysis in lymphoblastoid cells, T_a 62/60°C
1 × (3', 94°C); 5 × (20", 94°C – 20", 62°C – 40", 72°C); 40 × (20", 94°C – 20", 60°C – 40", 72°C); 1 × (7', 72°C)
- Cycle K – *hKIAA1202* expression analysis in lymphoblastoid cells, T_a 60/58°C
1 × (3', 94°C); 5 × (20", 94°C – 20", 60°C – 40", 72°C); 40 × (20", 94°C – 20", 58°C – 40", 72°C); 1 × (7', 72°C)