



B

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|-------|--|-----|
| WT | GATAATAATATTATCAAAAACGTCAGAGTATTATCGTATTGTATATTTCCAAATTACTT | 60 |
| at152 | GATAATAATATTATCAAAAACGTCAGAGTATTATCGTATTGTATATTTCCAAATTACTT | 60 |
| at162 | GATAATAATATTATCAAAAACGTCAGAGTATTATCGTATTGTATATTTCCAAATTACTT | 60 |
| at186 | GATAATAATATTATCAAAAACGTCAGAGTATTATCGTATTGTATATTTCCAAATTACTT | 60 |
| | | |
| WT | GTTATCACATCGAGTAAATCGGACGCAAAGGCCACAAGACTAGAA----- | 105 |
| at152 | GTTATCACATCGAGTAAATCGGACGCAAAGGCCACAAGA-----ARAGGAAAGCCCTTC | 115 |
| at162 | GTTATCACATCGAGTAAATCGGACGCAAAGGCCTTT----- | 96 |
| at186 | GTTATCACATCGAGTAAATCGGACGCAAAGGCCACAAGA-----A----- | 100 |
| | | |
| WT | -----GGAAAGTTAAAGTCCACTCGAAGGTCCATCCTCCTCAGAAAATTAAGCG | 155 |
| at152 | TTTTTAAGAAAGGAAAGTTAAAGTCCACTCGAAGGTCCATCCTCCTCAGAAAATTAAGCG | 175 |
| at162 | GAAGTTAAAGTCCACTCGAAGGTCCATCCTCCTCAGAAAATTAAGCG | 145 |
| at186 | -----GGAAAGTTAAAGTCCAATCGAAGGTCCATCCTCCTCAGAAAATTAAGCG | 150 |
| | | |
| WT | AAGCTGCCGAAAAGAGATAAACGTAGCACACTTCGTCCCAAGATTAATAATTCGAAGGTT | 215 |
| at152 | AAGCTGCCGAAAAGAGATAAACGTAGCACACTTCGTCCCAAGATTAATAATTCGAAGGTT | 235 |
| at162 | AAGCTGCCGAAAAGAGATAAACGTAGCACACTTCGTCCCAAGATTAATAATTCGAAGGTT | 205 |
| at186 | AAGCTGCCGAAAAGAGATAAACGTAGCACACTTCGTCCCAAGATTAATAATTCGAAGGTT | 210 |
| | | |
| WT | TTTACAGTGAACCTGCTGCAAGTACAAGATCCGTTTCGAGACCCATGAGGCGCAATCAGTGC | 275 |
| at152 | TTTACAGTGAACCTGCTGCAAGTACAAGATCCGTTTCGAGACCCATGAGGCGCAATCAGTGC | 295 |
| at162 | TTTACAGTGAACCTGCTGCAAGTACAAGATCCGTTTCGAGACCCATGAGGCGCAATCAGTGC | 265 |
| at186 | TTTACAGTGAACCTGCTGCAAGTACAAGATCCGTTTCGAGACCCATGAGGCGCAATCAGTGC | 270 |
| | | |
| WT | AACCTGGCCACCCAGTGCCCTCCACACGGTCGCCATCGCCCGTCTGTGCCGCTCCTG | 335 |
| at152 | AACCTGGCCACCCAGTGCCCTCCACACGGTCGCCATCGCCCGTCTGTGCCGCTCCTG | 355 |
| at162 | AACCTGGCCACCCAGTGCCCTCCACACGGTCGCCATCGCCCGTCTGTGCCGCTCCTG | 325 |
| at186 | AACCTGGCCACCCAGTGCCCTCCACACGGTCGCCATCGCCCGTCTGTGCCGCTCCTG | 330 |
| | | |
| WT | CATCATCCTGTCCGGCGGAAGGTGGTCCATATGCCGGAAACCGTGGTCAATGCACATGCGG | 395 |
| at152 | CATCATCCTGTCCGGCGGAAGGTGGTCCATATGCCGGAAACCGTGGTCAATGCACATGCGG | 415 |
| at162 | CATCATCCTGTCCGGCGGAAGGTGGTCCATATGCCGGAAACCGTGGTCAATGCACATGCGG | 385 |
| at186 | CATCATCCTGTCCGGCGGAAGGTGGTCCATATGCCGGAAACCGTGGTCAATGCACATGCGG | 390 |
| | | |
| WT | AATATGGAGGACGCCCGCGAGTGGCGGTTAAGCACAGAAGAACCCTTATTCAAACCCAT | 455 |
| at152 | AATATGGAGGACGCCCGCGAGTGGCGGTTAAGCACAGAAGAACCCTTATTCAAACCCAT | 475 |
| at162 | AATATGGAGGACGCCCGCGAGTGGCGGTTAAGCACAGAAGAACCCTTATTCAAACCCAT | 445 |
| at186 | AATATGGAGGACGCCCGCGAGTGGCGGTTAAGCACAGAAGAACCCTTATTCAAACCCAT | 450 |
| | | |
| WT | GTTCTTCGCCGGATGTGGATGATGACGAAGATACACACCAATCGATCGGAGGTCAAGG | 515 |
| at152 | GTTCTTCGCCGGATGTGGATGATGACGAAGATACACACCAATCGATCGGAGGTCAAGG | 535 |
| at162 | GTTCTTCGCCGGATGTGGATGATGACGAAGATACACACCAATCGATCGGAGGTCAAGG | 505 |
| at186 | GTTCTTCGCCGGATGTGGATGATGACGAAGATACACACCAATCGATCGGAGGTCAAGG | 510 |
| | | |
| WT | CAAGCCTATAGGATGGGTCAAATGAGACCCTTATCCAGCGACGTGGATGTGGATGACATG | 575 |
| at152 | CAAGCCTATAGGATGGGTCAAATGAGACCCTTATCCAGCGACGTGGATGTGGATGACATG | 595 |
| at162 | CAAGCCTATAGGATGGGTCAAATGAGACCCTTATCCAGCGACGTGGATGTGGATGACATG | 565 |
| at186 | CAAGCCTATAGGATGGGTCAAATGAGACCCTTATCCAGCGACGTGGATGTGGATGACATG | 570 |
| | | |
| WT | GATGTGGACCCGTTTCAGTAG | 596 |
| at152 | GATGTGGACCCGTTTCAGTAG | 616 |
| at162 | GATGTGGACCCGTTTCAGTAG | 586 |
| at186 | GATGTGGACCCGTTTCAGTAG | 591 |

C

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|-------|---|-----|
| WT | GRKGHKTRRKVKVHSPVHPQIKAKLPKRDKRSTLRLPKINNSKVFHVNCKYKIRSRP | 60 |
| at152 | GRKGHKRKLPLP* | 15 |
| at162 | GRKGL* | 7 |
| at186 | GRKGHKES* | 11 |
| | | |
| WT | MRRNQCNLATQCPHSHTVAIAPSVPLLHHVRRKVVHMPETVVMHMRMEDARRVAVKHRR | 120 |
| at152 | ----- | 15 |
| at162 | ----- | 7 |
| at186 | ----- | 11 |
| | | |
| WT | TLIQTHVSPDVEDDEDTHQIDRRSRQAYRMGQMRPLSSDVEDDMDVDFPQ | 172 |
| at152 | ----- | 15 |
| at162 | ----- | 7 |
| at186 | ----- | 11 |