

Aatk\_1 ATCGACAC Aatk  
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Aatk\_3 GAAGTACT Aatk  
Aatk\_4 GGCAGCGC Aatk  
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Abl2\_1 AACAAAGA Abl2  
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Abl2\_4 TGGGGGCC Abl2  
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Acvr1\_2 GCTTTCAG Acvr1  
Acvr1\_3 GGTGGAA Acvr1  
Acvr1\_4 TGTGGGAC Acvr1  
Acvr1b\_1 CAAGAACT Acvr1b  
Acvr1b\_2 GTGTCTAC Acvr1b  
Acvr1b\_3 TCTACGAC Acvr1b  
Acvr1b\_4 TGTACGTA Acvr1b  
Acvr2a\_1 AGAGACAC Acvr2a  
Acvr2a\_2 AGCTGTTA Acvr2a  
Acvr2a\_3 AGGATTGC Acvr2a  
Acvr2a\_4 GGTGTACA Acvr2a  
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Acvr2b\_3 GCAGCAGC Acvr2b  
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Acvr1\_2 GTTCCGCG Acvr1  
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Acvr1\_4 TGCCAAAG Acvr1  
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Adk\_2 CACTTTCA Adk  
Adk\_3 CATTGGGA Adk  
Adk\_4 TGTGCTGC Adk  
Ak1\_1 CTACACCC Ak1  
Ak1\_2 CTTTGGCT Ak1  
Ak1\_3 GATCGACG Ak1  
Ak1\_4 GTCAGCTC Ak1  
Ak2\_1 GGTAGGAC Ak2  
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Akt2\_2 CATACTCC Akt2  
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Akt2\_4 TGTGGTGT Akt2  
Alk\_1 GAATTCCA Alk  
Alk\_2 GGGGTGT Alk  
Alk\_3 TACTTAA Alk  
Alk\_4 TGGGCAAC Alk  
Speg\_1 GAATATCC Speg  
Speg\_2 GCATCCGC Speg  
Speg\_3 TCTCTGTG Speg  
Speg\_4 TCTGTGCA Speg  
Araf\_1 CCTCTACC Araf  
Araf\_2 GCCTAACA Araf  
Araf\_3 GGACCTTG Araf  
Araf\_4 GTGGACGT Araf  
Atm\_1 AAGACTTG Atm  
Atm\_2 GAGTATAA Atm  
Atm\_3 TAAGTCAT Atm  
Atm\_4 TGCAAGAT Atm  
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Bckdk\_3 GCGACCGC Bckdk  
Bckdk\_4 TGTCTTCA Bckdk  
Blk\_1 AAGGTCCC Blk  
Blk\_2 ACTTGAAT Blk  
Blk\_3 CGTGAAAC Blk  
Blk\_4 TTATTACA Blk  
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Bmpr1b\_4 TGATGGGC Bmpr1b  
Bmpr2\_1 AGATAATG Bmpr2  
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Bmpr2\_3 GCTGGACA Bmpr2  
Bmpr2\_4 GTAGGATC Bmpr2  
Bmx\_1 CAACATAC Bmx  
Bmx\_2 CCGCCACC Bmx

Bmx\_3 CTGTTGAT(Bmx  
Bmx\_4 TTTCAGCA` Bmx  
Btk\_1 AATCCGGT Btk  
Btk\_2 AGATTTAG Btk  
Btk\_3 TATGAATA` Btk  
Btk\_4 TGGAGGAC(Btk  
Bub1\_1 CTGGGTGA` Bub1  
Bub1\_2 GCAGTATC Bub1  
Bub1\_3 TCAGACAG Bub1  
Bub1\_4 TCCATAAA` Bub1  
Bub1b\_1 AATTATTG, Bub1b  
Bub1b\_2 AGATAACT Bub1b  
Bub1b\_3 GAACAGAA` Bub1b  
Bub1b\_4 GGAACTCC Bub1b  
Ddr1\_1 ACTTACGC(Ddr1  
Ddr1\_2 GGCAGCGC(Ddr1  
Ddr1\_3 TCGGGTAA Ddr1  
Ddr1\_4 TGTCATAT, Ddr1  
Calm1\_1 CCATCACA, Calm1  
Calm1\_2 CCATCATA( Calm1  
Calm1\_3 GCAGGATA` Calm1  
Calm1\_4 TAGCGAAG Calm1  
Calm3\_1 AGATGGCA` Calm3  
Calm3\_2 CAGCGAGC Calm3  
Calm3\_3 CATCTCCA| Calm3  
Calm3\_4 GCTGGGAC Calm3  
Camk2a\_1 CAAACGCA Camk2a  
Camk2a\_2 GATATACA Camk2a  
Camk2a\_3 GCTGTCAT( Camk2a  
Camk2a\_4 GGTGGTGC Camk2a  
Camk2b\_1 AGTAACGC Camk2b  
Camk2b\_2 CCAACAGC Camk2b  
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Camk2b\_4 TACAGAGC Camk2b  
Camk2g\_1 CTTCCAGC, Camk2g  
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Camk2g\_4 TCATCAGA Camk2g  
Camk4\_1 AAAGACAC Camk4  
Camk4\_2 AAGCGTAC Camk4  
Camk4\_3 ACCTCGAA Camk4  
Camk4\_4 ATACTACA( Camk4  
Cask\_1 AGAATCAC Cask  
Cask\_2 CAGAAACA Cask  
Cask\_3 TAAAGTGA Cask  
Cask\_4 TTCTCCCA( Cask  
Cd2\_1 AGAGACA` Cd2

Cd2\_2 CCGATGAT Cd2  
Cd2\_3 GAACGCAC Cd2  
Cd2\_4 TGATATTG Cd2  
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Cdk1\_3 GATACGAG Cdk1  
Cdk1\_4 TCTTTCAG Cdk1  
Cdk11b\_1 ACATCGTA Cdk11b  
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Cdk5\_1 CCAGAACC Cdk5  
Cdk5\_2 GCAGCGGA Cdk5  
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Cdk6\_1 AGATGCAA Cdk6  
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Chk1\_1 CAACCCAG Chk1  
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Chka\_3 AGTGCTCT Chka  
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Chuk\_1 AAAGCTCC Chuk  
Chuk\_2 AACTGCCA Chuk  
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Ckm\_1 CGTGTAGG Ckm  
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Clk2\_1 ATCGGCGG Clk2  
Clk2\_2 CTTGTAGC Clk2  
Clk2\_3 GCAGTGAC Clk2  
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Plk3\_1 AAATCTGT Plk3  
Plk3\_2 CCGAGGAC Plk3  
Plk3\_3 CGAGTCTG Plk3  
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Crkl\_1 CTTACGTT Crkl  
Crkl\_2 GACACGCG Crkl  
Crkl\_3 GGGCGCCC Crkl  
Crkl\_4 GGTCCCCG Crkl  
Csf1r\_1 AAGATCAT Csf1r  
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Csnk2a1\_1 AGACATTG Csnk2a1  
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Dapk2\_1 CTCAAGGA Dapk2  
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Dck\_4 TTTGAGCT Dck  
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Dyrk1a\_4 TCTTGATT Dyrk1a  
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Dyrk1b\_4 GGTTGTCG Dyrk1b  
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Eef2k\_3 TCAGCCAA Eef2k  
Eef2k\_4 TTTGGTGA Eef2k  
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Eif2ak3\_1 AAAGTTCC Eif2ak3  
Eif2ak3\_2 CGAACCGG Eif2ak3  
Eif2ak3\_3 GAATATAC Eif2ak3  
Eif2ak3\_4 TACGGACT Eif2ak3  
Mark2\_1 AAGATCGG Mark2  
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Mark2\_3 CAACGACG Mark2  
Mark2\_4 GCTGGCCC Mark2  
Epha1\_1 AAGCTAAG Epha1  
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Ephb6\_2 ACCTCAAA Ephb6  
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Ptk2\_2 CAAGCAGC Ptk2  
Ptk2\_3 GATCGGTC Ptk2  
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Fer\_2 CCAGCAGT Fer  
Fer\_3 GAAGATCC Fer  
Fer\_4 TATAAAGA Fer  
Fes\_1 CCTGGTAC Fes  
Fes\_2 CTGCCCGA Fes  
Fes\_3 GCAGCGTC Fes  
Fes\_4 GTCACTGC Fes  
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Fgr\_1 GGAGTCAA Fgr  
Fgr\_2 GGCGACG Fgr  
Fgr\_3 GTGACAGA Fgr  
Fgr\_4 TCTACAGG Fgr  
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Flt1\_3 CTTACCAT Flt1  
Flt1\_4 TCTATTGT Flt1  
Flt3\_1 CAGTACTC Flt3  
Flt3\_2 CCCACTTT Flt3  
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Flt3\_4 TCCACGTG Flt3  
Flt4\_1 AGCTGTCC Flt4  
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Fxn\_3 GCGCGGG Fxn  
Fxn\_4 TGGGGACA Fxn  
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Frk\_2 ATAAGAAG Frk  
Frk\_3 GTGGAATA Frk  
Frk\_4 TCCTCCGC Frk  
Brd2\_1 AAAAGGCC Brd2  
Brd2\_2 AGAGACAC Brd2  
Brd2\_3 CTGGTACA Brd2  
Brd2\_4 GTGCCATA Brd2  
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Fyn\_2 GGGTGGG Fyn  
Fyn\_3 GTGGATAC Fyn  
Fyn\_4 TTATGACT Fyn  
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Gk2\_2 CGAAATTA Gk2  
Gk2\_3 CTATCGGC Gk2  
Gk2\_4 GGTCAAGC Gk2  
Galk1\_1 ACAGTGGC Galk1  
Galk1\_2 AGTTGGTC Galk1  
Galk1\_3 CTGGAAAC Galk1  
Galk1\_4 GGGCCGCC Galk1  
Grk4\_1 ACTGAATT Grk4  
Grk4\_2 CCAGAAGC Grk4  
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Guk1\_2 CGACATCT Guk1  
Guk1\_3 GAACCTGT Guk1  
Guk1\_4 TGCAGCGT Guk1  
Magi1\_1 ACTCCCAG Magi1  
Magi1\_2 ATGTGTGT Magi1  
Magi1\_3 CCTGACGC Magi1  
Magi1\_4 TGGGAAAT Magi1  
Hck\_1 ACTGGTGA Hck  
Hck\_2 GTCGTACA Hck  
Hck\_3 GTTCCTCC Hck  
Hck\_4 TCCATCTG Hck  
Mst1\_1 AAGTCACA Mst1  
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Mst1\_3 GGCTCAGC Mst1  
Mst1\_4 GTAATCCG Mst1  
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Hipk1\_2 GACTCATC Hipk1  
Hipk1\_3 GTAAAGGC Hipk1  
Hipk1\_4 TTGCAGGT Hipk1  
Hipk2\_1 ACAGGTCA Hipk2  
Hipk2\_2 ACTGGGCC Hipk2  
Hipk2\_3 TTAGGTTA Hipk2  
Hipk2\_4 TTCAGCAA Hipk2  
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Hipk3\_2 AGCTGGGC Hipk3  
Hipk3\_3 ATACCATT Hipk3  
Hipk3\_4 GCTTCATA Hipk3  
Hk1\_1 CCGACAAT Hk1  
Hk1\_2 CGTAGCCG Hk1

Hk1_3	CTCCCGGG Hk1
Hk1_4	GGATCTTT, Hk1
Hk2_1	ATCCGGAG Hk2
Hk2_2	ATTCCCGA, Hk2
Hk2_3	GGAGATGC Hk2
Hk2_4	GGAGTGGC Hk2
Hus1_1	ACTTACCA, Hus1
Hus1_2	ACTTACGT, Hus1
Hus1_3	GATTTATT, Hus1
Hus1_4	TTCTCGGA, Hus1
Igf1r_1	AGAACCGA, Igf1r
Igf1r_2	CTATGGTG Igf1r
Igf1r_3	CTGCTTAT, Igf1r
Igf1r_4	GGAAAACC, Igf1r
Ikbkb_1	ATGTGGCA Ikbkb
Ikbkb_2	CAAGATCC Ikbkb
Ikbkb_3	GAAGCCAG Ikbkb
Ikbkb_4	TCACACAT, Ikbkb
Irak1_1	ACAGAAGC, Irak1
Irak1_2	CCCACCGA, Irak1
Irak1_3	GGTGCGTC, Irak1
Irak1_4	TGGGCAAC, Irak1
Ilk_1	CCTCGGAG Ilk
Ilk_2	CTTCCTGT, Ilk
Ilk_3	GATTAATG Ilk
Ilk_4	TCAGTGTC, Ilk
Insr_1	CACACTGC, Insr
Insr_2	CGAGGATT, Insr
Insr_3	GTGATACC, Insr
Insr_4	TATAGCCA, Insr
Itk_1	CAGCCCCA, Itk
Itk_2	GTAAGCCT, Itk
Itk_3	TCAGGAAC, Itk
Itk_4	TTGCTCCA, Itk
Jak1_1	AAACATAT, Jak1
Jak1_2	CGATGCCA, Jak1
Jak1_3	TCCGAACC, Jak1
Jak1_4	TGAATAAA, Jak1
Jak2_1	AAGTCCTA, Jak2
Jak2_2	ACAGATAC, Jak2
Jak2_3	CGGGTATT, Jak2
Jak2_4	TCTTCAGG, Jak2
Jak3_1	AGAAAAGT, Jak3
Jak3_2	CACCACCG, Jak3
Jak3_3	CAGACATC, Jak3
Jak3_4	GGGCTTTG, Jak3
Kdr_1	ATACGTTT, Kdr

Kdr\_2 CATAGCTG Kdr  
Kdr\_3 TTACCCGC Kdr  
Kdr\_4 TTGTAAAG Kdr  
Khk\_1 AACTGGAA Khk  
Khk\_2 AAGAGCCC Khk  
Khk\_3 TCCGATGC Khk  
Khk\_4 TGTGGTGG Khk  
Uhmk1\_1 ACAGTGCT Uhmk1  
Uhmk1\_2 GAGGTGAT Uhmk1  
Uhmk1\_3 GCTCCACA Uhmk1  
Uhmk1\_4 TTTGCGGA Uhmk1  
Kit\_1 AAGCACAA Kit  
Kit\_2 ACACGTAA Kit  
Kit\_3 AGATTTGG Kit  
Kit\_4 TGGTTGCA Kit  
Ksr1\_1 AGGGCCG/ Ksr1  
Ksr1\_2 AGGGGAT/ Ksr1  
Ksr1\_3 ATGCCATA Ksr1  
Ksr1\_4 GGGGAGC/ Ksr1  
Lats1\_1 AGATGATA Lats1  
Lats1\_2 CAGACATC Lats1  
Lats1\_3 CCTGCGCA Lats1  
Lats1\_4 GGAGTAAC Lats1  
Lck\_1 AAGATCCG Lck  
Lck\_2 CCGGGAA/ Lck  
Lck\_3 GCTTTATG/ Lck  
Lck\_4 GTACTACA Lck  
Limk2\_1 CAGTGGG/ Limk2  
Limk2\_2 CTGACCGA Limk2  
Limk2\_3 GCTACCAC Limk2  
Limk2\_4 TACTCGCA/ Limk2  
Ltk\_1 ACACCGGC Ltk  
Ltk\_2 AGAACATT Ltk  
Ltk\_3 CACACAAA Ltk  
Ltk\_4 GGACTCAG Ltk  
Lyn\_1 AGAGATTA Lyn  
Lyn\_2 AGCGACAC Lyn  
Lyn\_3 CCAACTTA/ Lyn  
Lyn\_4 GGAACAAC Lyn  
Mak\_1 AAACACCC Mak  
Mak\_2 AGGCTTAG Mak  
Mak\_3 GACACATA Mak  
Mak\_4 TATTTCTG/ Mak  
Mapkapk2 AGTGGTCA Mapkapk2  
Mapkapk2 CCCACACA Mapkapk2  
Mapkapk2 GCCGTGAT Mapkapk2  
Mapkapk2 TTTAGTCG/ Mapkapk2

Mark3\_1 CAGCTACT Mark3  
Mark3\_2 CAGTTGTG Mark3  
Mark3\_3 GTGCTGAA Mark3  
Mark3\_4 TGTTGAAA Mark3  
Matk\_1 CCATGACA Matk  
Matk\_2 GGTCATGC Matk  
Matk\_3 TGGGCACC Matk  
Matk\_4 TGGTACCG Matk  
Abcc1\_1 AGCTGTAG Abcc1  
Abcc1\_2 GAGCGGAC Abcc1  
Abcc1\_3 GGCTAGGA Abcc1  
Abcc1\_4 GGTGAAGT Abcc1  
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Melk\_2 CTGTCACG Melk  
Melk\_3 GCTGGCGC Melk  
Melk\_4 GGAAATAC Melk  
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Mertk\_2 AGGTACGC Mertk  
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Mertk\_4 TGTATCTG Mertk  
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Met\_2 GGTGGATT Met  
Met\_3 GTATCGGA Met  
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Mpp1\_4 TGAAAAAC Mpp1  
Mast2\_1 AGCTGGCT Mast2  
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Nlk\_4 TCTTCAA Nlk  
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Musk\_2 ATGGAAGC Musk  
Musk\_3 CACCCGCA Musk  
Musk\_4 TGCAGGAC Musk  
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Pak1\_2 GGAGTGGT Pak1  
Pak1\_3 GGGCGTGC Pak1  
Pak1\_4 GGTTCGAG Pak1  
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Pak3\_2 ACTTAGTG Pak3  
Pak3\_3 ATACATAG Pak3  
Pak3\_4 TCAGATCT, Pak3  
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Cdk16\_2 CATGAAGA Cdk16  
Cdk16\_3 GTCATGTA Cdk16  
Cdk16\_4 TAAAACAT, Cdk16  
Cdk18\_1 CCAGCGCC Cdk18  
Cdk18\_2 GCTGCGTC Cdk18  
Cdk18\_3 GGGACCG/ Cdk18  
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Cdk14\_3 GTCGACTA Cdk14  
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Pik3r1\_4 TGGCTACA Pik3r1  
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Pik3r3\_3 ATAAAGAT Pik3r3  
Pik3r3\_4 TATCGAGC Pik3r3



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Pim1\_2 CCGGCAAG Pim1  
Pim1\_3 CGATGAGT Pim1  
Pim1\_4 TTCGACTT Pim1  
Pim2\_1 ATCCTGAT Pim2  
Pim2\_2 CAGAGGCT Pim2  
Pim2\_3 CCTGACGT Pim2  
Pim2\_4 GAAGGCGT Pim2  
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Pip5k1c\_3 TGGTGGCA Pip5k1c  
Pip5k1c\_4 TTACCAAA Pip5k1c  
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Pklr\_4 TGTACGAA Pklr  
Plau\_1 ACTCCCAC Plau  
Plau\_2 CCAACACT Plau  
Plau\_3 CCCCCAAC Plau  
Plau\_4 GCTGGTAC Plau  
Plk1\_1 CCACTAGC Plk1  
Plk1\_2 CTAGCACA Plk1  
Plk1\_3 GAGCGATT Plk1  
Plk1\_4 GCTGGCGA Plk1  
Plxna3\_1 CATGACGG Plxna3  
Plxna3\_2 CCGTAAGC Plxna3

Plxna3\_3 GATGGGC/ Plxna3  
Plxna3\_4 TCAGCACT/ Plxna3  
Prkab1\_1 ACTGTTCA` Prkab1  
Prkab1\_2 AGATCCTT, Prkab1  
Prkab1\_3 CCTGTCCA` Prkab1  
Prkab1\_4 CGGGCCAC Prkab1  
Prkag1\_1 AGGCGTGC Prkag1  
Prkag1\_2 GCAGCGAT Prkag1  
Prkag1\_3 TAGACATG Prkag1  
Prkag1\_4 TTTGACAC` Prkag1  
Prkar1a\_1 AAGACAAA Prkar1a  
Prkar1a\_2 CCACGCTA Prkar1a  
Prkar1a\_3 CCGGCATC Prkar1a  
Prkar1a\_4 TATTCCCG, Prkar1a  
Prkar1b\_1 CCCAACAC Prkar1b  
Prkar1b\_2 GGACGAC/ Prkar1b  
Prkar1b\_3 GGTCCGGC Prkar1b  
Prkar1b\_4 TCCAAAGG Prkar1b  
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Prkar2a\_2 CAGCGCAG Prkar2a  
Prkar2a\_3 CGACCTCG Prkar2a  
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Prkar2b\_1 AGGACAAT Prkar2b  
Prkar2b\_2 GGGGAAC/ Prkar2b  
Prkar2b\_3 GTCGGTAA Prkar2b  
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Prkdc\_1 ACAGAGG/ Prkdc  
Prkdc\_2 AGAGCCAA Prkdc  
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Prkdc\_4 TGGCCCTT( Prkdc  
Prkg1\_1 CCTCAAGA Prkg1  
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Prkg2\_2 CTCACTCT( Prkg2  
Prkg2\_3 CTGGAAAA Prkg2  
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Mapk11\_1 GCAGCTCG Mapk11  
Mapk11\_2 TCCAATCG( Mapk11  
Mapk11\_3 TCTGCAGT, Mapk11  
Mapk11\_4 TGGCGCCC Mapk11  
Eif2ak2\_1 CATTGAA` Eif2ak2  
Eif2ak2\_2 TAAGCGCG Eif2ak2  
Eif2ak2\_3 TATACTTG, Eif2ak2  
Eif2ak2\_4 TGTAGATG Eif2ak2  
Prkx\_1 AGAATCGC Prkx

Prkx\_2 CCATCAAC Prkx  
Prkx\_3 TGAAAACA Prkx  
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Prps1\_3 GATGACTG Prps1  
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Ret\_2 CGGCACAC Ret  
Ret\_3 CGTCACCC Ret  
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Trim27\_3 TACCTGTA Trim27  
Trim27\_4 TTATCAGA Trim27  
Ripk1\_1 AATCCTTG Ripk1  
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Ripk1\_3 CCTGAATT Ripk1  
Ripk1\_4 GAAAGGA Ripk1  
Rock1\_1 AATGATAC Rock1  
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Rock1\_3 GAACAGAT Rock1  
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Rock2\_1 AAAAGCTT Rock2  
Rock2\_2 GATTACCT Rock2  
Rock2\_3 GCAGAAAC Rock2  
Rock2\_4 TCCCGACT Rock2  
Mst1r\_1 AAGACGTC Mst1r  
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Mst1r\_3 ATGTGGTC Mst1r  
Mst1r\_4 GGGAACAC Mst1r  
Ros1\_1 AGAGATAT Ros1  
Ros1\_2 GGGTTGTA Ros1  
Ros1\_3 GTCACTCC Ros1  
Ros1\_4 GTCATGGT Ros1

Rps6ka1\_1 CTCCATCA Rps6ka1  
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Rps6ka1\_3 CTTGACAG Rps6ka1  
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Ryk\_2 CCTCAGGT Ryk  
Ryk\_3 TGAGCAGA Ryk  
Ryk\_4 TGCACACA Ryk  
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Sgk1\_3 GCAGCCGT Sgk1  
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Ptk6\_1 CAGGATCT Ptk6  
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Ptk6\_3 CTTCAAGG Ptk6  
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Snrk\_1 CACCCTGC Snrk  
Snrk\_2 GAAGATCT Snrk  
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Syk\_2 CACACCAC Syk  
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Tgfbr3\_3 CATCTTCG Tgfbr3  
Tgfbr3\_4 GCTGTGGT Tgfbr3  
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Tie1\_3 GATATCGT Tie1  
Tie1\_4 GGCCACCA Tie1  
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Trim24\_2 GCACTAGG Trim24  
Trim24\_3 GGTGCACT Trim24  
Trim24\_4 TGTACTION Trim24  
Trim28\_1 AGGCGTTC Trim28  
Trim28\_2 ATGAAGGA Trim28  
Trim28\_3 CGCCGCAG Trim28  
Trim28\_4 GCACTCCA Trim28  
Tjp2\_1 CCACGCCG Tjp2  
Tjp2\_2 CCTCGGTC Tjp2  
Tjp2\_3 GCTTATGA Tjp2  
Tjp2\_4 TATGGGGC Tjp2  
Tk1\_1 AGGACTCC Tk1  
Tk1\_2 CAGGCCCA Tk1  
Tk1\_3 GTAATTGT Tk1  
Tk1\_4 TAGGACTG Tk1  
Dtymk\_1 ATTAAGGC Dtymk

Dtymk\_2 CGTCCAGC Dtymk  
Dtymk\_3 CGTGCTGG Dtymk  
Dtymk\_4 TGGTGTA A Dtymk  
Tssk2\_1 AGAGCGCC Tssk2  
Tssk2\_2 AGAGGTCT Tssk2  
Tssk2\_3 GGATGTCC Tssk2  
Tssk2\_4 GGC ACTG Tssk2  
Ttk\_1 AAAATCTG Ttk  
Ttk\_2 CTGGAGGT Ttk  
Ttk\_3 TCATAGGA Ttk  
Ttk\_4 TTCTGGCC Ttk  
Txk\_1 GAAGCCCC Txk  
Txk\_2 GGTGATA C Txk  
Txk\_3 TGAGAGAT Txk  
Txk\_4 TTTACAGT Txk  
Cmpk2\_1 AGTCGCGC Cmpk2  
Cmpk2\_2 AGTTGACC Cmpk2  
Cmpk2\_3 GGTGTTCC Cmpk2  
Cmpk2\_4 TCGGCCGC Cmpk2  
Tyro3\_1 AACCCGTA Tyro3  
Tyro3\_2 ACAGCTTA Tyro3  
Tyro3\_3 GGAGTTTG Tyro3  
Tyro3\_4 TAGGAGAC Tyro3  
Ulk1\_1 GCAGCTTG Ulk1  
Ulk1\_2 GGCAGTGT Ulk1  
Ulk1\_3 GGGGAGC Ulk1  
Ulk1\_4 GGTAATTG Ulk1  
Uck1\_1 ACATTCTC Uck1  
Uck1\_2 ACCACCTG Uck1  
Uck1\_3 GATGTTAG Uck1  
Uck1\_4 TGCCGCCG Uck1  
Vrk1\_1 ACCAGCAT Vrk1  
Vrk1\_2 CTGGGCAE Vrk1  
Vrk1\_3 TGAGCATG Vrk1  
Vrk1\_4 TGAAACT Vrk1  
Baz1b\_1 CATGACCA Baz1b  
Baz1b\_2 CTTGCACA Baz1b  
Baz1b\_3 GACTAGAT Baz1b  
Baz1b\_4 GCCTTGAG Baz1b  
Wee1\_1 AGGTGATT Wee1  
Wee1\_2 CAGAGAA Wee1  
Wee1\_3 GAAAAAG Wee1  
Wee1\_4 GCGGAAG Wee1  
Yes1\_1 AAGTGCCA Yes1  
Yes1\_2 CAGGCACT Yes1  
Yes1\_3 CTAGTCGC Yes1  
Yes1\_4 TCTAGCTT Yes1



Map3k19\_1 ATGGAGCC Map3k19  
Map3k19\_2 GGAATGC Map3k19  
Map3k19\_3 GGGGTGA Map3k19  
Map3k19\_4 GGGTACAC Map3k19  
Zap70\_1 CAACGGCA Zap70  
Zap70\_2 CGCGCACC Zap70  
Zap70\_3 GAAGCGAC Zap70  
Zap70\_4 TCGACAAC Zap70  
Akt3\_1 AAATGTTC Akt3  
Akt3\_2 AATTTGATC Akt3  
Akt3\_3 CCGTAGCC Akt3  
Akt3\_4 CTGCACCA Akt3  
Insrr\_1 AAGAACCT Insrr  
Insrr\_2 ACGGCAGC Insrr  
Insrr\_3 CAGAATGC Insrr  
Insrr\_4 CGGGAGCC Insrr  
Map2k5\_1 GAGCACAT Map2k5  
Map2k5\_2 GATTCCAA Map2k5  
Map2k5\_3 TACTTGCTC Map2k5  
Map2k5\_4 TTCACTTA1 Map2k5  
Mapk7\_1 AGGCTGCA Mapk7  
Mapk7\_2 GGTGTAGC Mapk7  
Mapk7\_3 TTCCCTGC Mapk7  
Mapk7\_4 TTGAGGAC Mapk7  
Nek3\_1 CCCACCTC Nek3  
Nek3\_2 CCTTAAAG Nek3  
Nek3\_3 CTGATCCTC Nek3  
Nek3\_4 GCGTTTGC Nek3  
Nek4\_1 AGACTAGC Nek4  
Nek4\_2 AGTTCCAA Nek4  
Nek4\_3 GCCCGCGT Nek4  
Nek4\_4 GGAGAGCC Nek4  
Osr1\_1 ACTTTAGA Osr1  
Osr1\_2 AGGTTAGC Osr1  
Osr1\_3 CCAGAAAA Osr1  
Osr1\_4 GAATGACC Osr1  
Pacsin1\_1 CAAACGGC Pacsin1  
Pacsin1\_2 GAACAGTA Pacsin1  
Pacsin1\_3 GGAGCGCC Pacsin1  
Pacsin1\_4 TATCACAA Pacsin1  
Papss1\_1 GATGGTGA Papss1  
Papss1\_2 TCAGCCAA Papss1  
Papss1\_3 TCAGTACC Papss1  
Papss1\_4 TGTGTAAG Papss1  
Papss2\_1 AGTCGATC Papss2  
Papss2\_2 CTTGATGT Papss2  
Papss2\_3 GAATATCC Papss2

Papss2\_4 GGTGCTAG Papss2  
Cib1\_1 ATAGTGTG Cib1  
Cib1\_2 GATCTGCT Cib1  
Cib1\_3 TGTCACTG Cib1  
Cib1\_4 TTTCAAGG Cib1  
Prkra\_1 TATTACTTA Prkra  
Prkra\_2 TGATTCAA Prkra  
Prkra\_3 TGGATGGA Prkra  
Prkra\_4 TTCACCTTC Prkra  
Twf2\_1 AGAATGCT Twf2  
Twf2\_2 CCAGCAGA Twf2  
Twf2\_3 CTGGGACC Twf2  
Twf2\_4 GCATCTCG Twf2  
Rnase1\_1 AAAAGGCC Rnase1  
Rnase1\_2 AGACTTCC Rnase1  
Rnase1\_3 CAGGATTA Rnase1  
Rnase1\_4 GTTCAGCA Rnase1  
Sh3bp5\_1 CCACGGAT Sh3bp5  
Sh3bp5\_2 GGCGGCG Sh3bp5  
Sh3bp5\_3 GGCTGCAC Sh3bp5  
Sh3bp5\_4 TGCTGAAC Sh3bp5  
Tlk2\_1 AAACGGA Tlk2  
Tlk2\_2 ACAGAGCA Tlk2  
Tlk2\_3 GTGTTTGC Tlk2  
Tlk2\_4 TGTCCTACT Tlk2  
Axl\_1 CAGACAAC Axl  
Axl\_2 CCCAGCAG Axl  
Axl\_3 GGATATCC Axl  
Axl\_4 TTGACCAC Axl  
Grk6\_1 ACAGAGTG Grk6  
Grk6\_2 CCAGACCA Grk6  
Grk6\_3 GAAGAAG Grk6  
Grk6\_4 GCTACACG Grk6  
Map2k1\_1 CATTCTAG Map2k1  
Map2k1\_2 GCTTCTCC Map2k1  
Map2k1\_3 GGGCACG Map2k1  
Map2k1\_4 TGCAACTC Map2k1  
Map2k2\_1 CATCCTGG Map2k2  
Map2k2\_2 CTTACCCA Map2k2  
Map2k2\_3 CTTGGGGA Map2k2  
Map2k2\_4 GTGCAACT Map2k2  
Map2k3\_1 AAAGTGCC Map2k3  
Map2k3\_2 CACAGGTG Map2k3  
Map2k3\_3 CCTAGACA Map2k3  
Map2k3\_4 CTTCCGGT Map2k3  
Map2k4\_1 AAATGGTC Map2k4  
Map2k4\_2 AACTTGAA Map2k4

Map2k4\_3 TGGATTTG Map2k4  
Map2k4\_4 TTTGTAAA Map2k4  
Map2k6\_1 AATGTGCT Map2k6  
Map2k6\_2 CTACGGTG Map2k6  
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Map2k6\_4 GCTGGGAC Map2k6  
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Map2k7\_3 GCGGTGTC Map2k7  
Map2k7\_4 TGGAGGGT Map2k7  
Map3k1\_1 ATAGTGT Map3k1  
Map3k1\_2 CTCCACTT Map3k1  
Map3k1\_3 TAGTGTCT Map3k1  
Map3k1\_4 TCTTTCCCA Map3k1  
Map3k11\_1 AGCTGAGA Map3k11  
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Map3k11\_3 GCGGAGCA Map3k11  
Map3k11\_4 TCCAACTA Map3k11  
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Map3k12\_2 ACTAGATG Map3k12  
Map3k12\_3 CTAAAGTC Map3k12  
Map3k12\_4 TCTCGAAG Map3k12  
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Map3k2\_2 CCTGGTGA Map3k2  
Map3k2\_3 GGA ACTTC Map3k2  
Map3k2\_4 TAGATCCA Map3k2  
Map3k3\_1 ACAGACAC Map3k3  
Map3k3\_2 CATCTTCG Map3k3  
Map3k3\_3 GCACTCCG Map3k3  
Map3k3\_4 TATACGAG Map3k3  
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Map3k4\_2 ATAACCCA Map3k4  
Map3k4\_3 GCTCGCCT Map3k4  
Map3k4\_4 GGGGAGG Map3k4  
Map3k5\_1 ATAATCGA Map3k5  
Map3k5\_2 ATGCGTAA Map3k5  
Map3k5\_3 CTGAACGA Map3k5  
Map3k5\_4 GGGCGGC Map3k5  
Map3k7\_1 AAACCCTT Map3k7  
Map3k7\_2 GATCGACT Map3k7  
Map3k7\_3 GCCCAAAG Map3k7  
Map3k7\_4 GGGACTTA Map3k7  
Map3k8\_1 ATCTGTCA Map3k8  
Map3k8\_2 GCCCAGAC Map3k8  
Map3k8\_3 GGACGTCC Map3k8  
Map3k8\_4 TCTCTTAT Map3k8  
Map4k1\_1 ACTGAACC Map4k1

Map4k1\_2 AGGTAGAT Map4k1  
Map4k1\_3 CCTCCCCG Map4k1  
Map4k1\_4 CGATGGGC Map4k1  
Map4k2\_1 GCCACCCT Map4k2  
Map4k2\_2 GGTCCGA Map4k2  
Map4k2\_3 GTCATGCG Map4k2  
Map4k2\_4 TTCAGAGT Map4k2  
Mapk1\_1 GCTGACCT Mapk1  
Mapk1\_2 GTCACACA Mapk1  
Mapk1\_3 TGGAGCTC Mapk1  
Mapk1\_4 TTCTCCGA Mapk1  
Mapk10\_1 ACAGGGAT Mapk10  
Mapk10\_2 GAACCAA Mapk10  
Mapk10\_3 GCAAGTAA Mapk10  
Mapk10\_4 GTTCTGGT Mapk10  
Mapk13\_1 CAGACCTA Mapk13  
Mapk13\_2 GATGCTCA Mapk13  
Mapk13\_3 GCGGGGC Mapk13  
Mapk13\_4 GCTCCGAA Mapk13  
Mapk14\_1 CAGGCTAC Mapk14  
Mapk14\_2 TACAAAGA Mapk14  
Mapk14\_3 TGGATGTG Mapk14  
Mapk14\_4 TTCGGCTG Mapk14  
Mapk3\_1 ACTGCAGC Mapk3  
Mapk3\_2 CCACGTGC Mapk3  
Mapk3\_3 GACCCTGA Mapk3  
Mapk3\_4 GTATATAC Mapk3  
Mapk8\_1 GAATAATT Mapk8  
Mapk8\_2 GGGTCTGA Mapk8  
Mapk8\_3 TCGCTACT Mapk8  
Mapk8\_4 TGATAATA Mapk8  
Mapk9\_1 ATAGTATC Mapk9  
Mapk9\_2 GAAAACA Mapk9  
Mapk9\_3 GAAGGTA Mapk9  
Mapk9\_4 TACCAGCA Mapk9  
Mok\_1 AATATTTA Mok  
Mok\_2 CAGAGTAC Mok  
Mok\_3 GAGCCGCA Mok  
Mok\_4 TGGTCCAG Mok  
Hunk\_1 ACTTCTTG Hunk  
Hunk\_2 CCAAAAAC Hunk  
Hunk\_3 TGGTTGAA Hunk  
Hunk\_4 TTCCAGCA Hunk  
Ror1\_1 ACAGCCGA Ror1  
Ror1\_2 ACTTCAAG Ror1  
Ror1\_3 AGCACGGC Ror1  
Ror1\_4 TCATCACG Ror1

Ror2\_1 AGAGAATA Ror2  
Ror2\_2 CTGGTCTG Ror2  
Ror2\_3 GCTCTGGC Ror2  
Ror2\_4 TGGTGGCC Ror2  
Ern2\_1 AGATCCCC Ern2  
Ern2\_2 CCAAGCCA Ern2  
Ern2\_3 CTGTGACA Ern2  
Ern2\_4 GTTCGGCC Ern2  
Map4k4\_1 AATGAAAG Map4k4  
Map4k4\_2 GGAAAGG Map4k4  
Map4k4\_3 GGAATGGC Map4k4  
Map4k4\_4 TCATCTCC Map4k4  
Eif2ak4\_1 ATTCTGGC Eif2ak4  
Eif2ak4\_2 CTGCAAGC Eif2ak4  
Eif2ak4\_3 CTGCGGGA Eif2ak4  
Eif2ak4\_4 GTAGGTGT Eif2ak4  
Nrk\_1 ATCACAAT Nrk  
Nrk\_2 GCTCAGTC Nrk  
Nrk\_3 GCTGATCG Nrk  
Nrk\_4 TGATCAAT Nrk  
Sgk2\_1 AGAGCCTT Sgk2  
Sgk2\_2 CCAATGGG Sgk2  
Sgk2\_3 CCTACTGG Sgk2  
Sgk2\_4 GAGAGAG Sgk2  
Pdk4\_1 GCTTAGGT Pdk4  
Pdk4\_2 GGAACGTA Pdk4  
Pdk4\_3 TATCGACC Pdk4  
Pdk4\_4 TGAGCATC Pdk4  
Dguok\_1 AGAAAGG Dguok  
Dguok\_2 CGTGGACC Dguok  
Dguok\_3 TCCTGCAG Dguok  
Dguok\_4 TTTCATGA Dguok  
Csnk1e\_1 AGCTCTCT Csnk1e  
Csnk1e\_2 AGGCTTAT Csnk1e  
Csnk1e\_3 GCTGGTGT Csnk1e  
Csnk1e\_4 TGTCGGGC Csnk1e  
Ip6k1\_1 CAGATGCT Ip6k1  
Ip6k1\_2 GAAGTGTC Ip6k1  
Ip6k1\_3 TGGACTTG Ip6k1  
Ip6k1\_4 TTCACTCTC Ip6k1  
Tpk1\_1 CACTTATA Tpk1  
Tpk1\_2 CTTGCCTG Tpk1  
Tpk1\_3 GAACTTGA Tpk1  
Tpk1\_4 GAACTTGA Tpk1  
Mapk12\_1 CAGGATAT Mapk12  
Mapk12\_2 GGTGACCA Mapk12  
Mapk12\_3 TCATGGCG Mapk12

Mapk12\_4 TTTCCCCA Mapk12  
Ulk2\_1 AATAAAAC Ulk2  
Ulk2\_2 ATGTTGAG Ulk2  
Ulk2\_3 GGCAGTGC Ulk2  
Ulk2\_4 TGTTCTGA Ulk2  
Slamf6\_1 CACTGCGC Slamf6  
Slamf6\_2 GAACGCCA Slamf6  
Slamf6\_3 GATTACTT Slamf6  
Slamf6\_4 TGGGACCT Slamf6  
Pik3cg\_1 CACCCACC Pik3cg  
Pik3cg\_2 GATCTATG Pik3cg  
Pik3cg\_3 GGAGCAC Pik3cg  
Pik3cg\_4 TGCGGGG Pik3cg  
Lats2\_1 ATAAGGTC Lats2  
Lats2\_2 ATTCTTGC Lats2  
Lats2\_3 GAGCTTTC Lats2  
Lats2\_4 GCTGGGTG Lats2  
Mapk6\_1 AGCCAGTT Mapk6  
Mapk6\_2 CAGCTGAT Mapk6  
Mapk6\_3 GATCGCAG Mapk6  
Mapk6\_4 GCTCCGAG Mapk6  
Gne\_1 ACGTCCAA Gne  
Gne\_2 CCTCTTGTI Gne  
Gne\_3 GCTCCACA Gne  
Gne\_4 TTGCAGCTI Gne  
Chek2\_1 AATAAGCT Chek2  
Chek2\_2 CATACATC Chek2  
Chek2\_3 GCTGGAG Chek2  
Chek2\_4 TAAAGATC Chek2  
Exosc10\_1 CAACCCTA Exosc10  
Exosc10\_2 CAATGTCA Exosc10  
Exosc10\_3 CATGATGC Exosc10  
Exosc10\_4 TCATACTC Exosc10  
Mink1\_1 AAGGCAGC Mink1  
Mink1\_2 CCCCGACC Mink1  
Mink1\_3 GAGCGGA Mink1  
Mink1\_4 TCTTCCGC Mink1  
Mpp2\_1 ACTGGCTG Mpp2  
Mpp2\_2 CTGCGCGC Mpp2  
Mpp2\_3 GATACACC Mpp2  
Mpp2\_4 TCAGGGTG Mpp2  
Pbk\_1 AGGGATAT Pbk  
Pbk\_2 GTTATATC Pbk  
Pbk\_3 TCTCAGAG Pbk  
Pbk\_4 TGAATGAC Pbk  
Rab11fip5\_ ACTTGCGT Rab11fip5  
Rab11fip5\_ TGACCCCC Rab11fip5

Rab11fip5\_TGATGGAA Rab11fip5  
Rab11fip5\_TGGGAGCC Rab11fip5  
Camk1\_1 CAAGAGG/ Camk1  
Camk1\_2 GTCAAGTA Camk1  
Camk1\_3 TGCCACAT, Camk1  
Camk1\_4 TGTGGAG/ Camk1  
Dlg3\_1 AGGCCCAE Dlg3  
Dlg3\_2 AGTCCGAT Dlg3  
Dlg3\_3 GGGGAGC/ Dlg3  
Dlg3\_4 GGGGCTAC Dlg3  
Stk39\_1 AAGAACGC Stk39  
Stk39\_2 CCGTGTA Stk39  
Stk39\_3 GGTGTAAT Stk39  
Stk39\_4 TCTACACC/ Stk39  
Map3k6\_1 ATGATGGC Map3k6  
Map3k6\_2 GCCCGGA Map3k6  
Map3k6\_3 GCTGGACT Map3k6  
Map3k6\_4 TGGCCGAC Map3k6  
Map3k14\_1 CCCCAAA Map3k14  
Map3k14\_2 CGTGGTTT, Map3k14  
Map3k14\_3 GCAAAGCC Map3k14  
Map3k14\_4 TGGGCCAC Map3k14  
Cdkl2\_1 AACATTTA( Cdkl2  
Cdkl2\_2 CTTCAGGG Cdkl2  
Cdkl2\_3 GGAGGTTT Cdkl2  
Cdkl2\_4 TGGTCATT( Cdkl2  
Cks1b\_1 ACGACGAC Cks1b  
Cks1b\_2 GAATCTGA Cks1b  
Cks1b\_3 TTCAGATT( Cks1b  
Cks1b\_4 TTCGGACA Cks1b  
Nme6\_1 ACTTCCAC( Nme6  
Nme6\_2 CATGCTCT( Nme6  
Nme6\_3 CGTGCTCG Nme6  
Nme6\_4 GTTCCTCA| Nme6  
Rfk\_1 CATCATCC/ Rfk  
Rfk\_2 CGGCGATC Rfk  
Rfk\_3 CTATGGGG Rfk  
Rfk\_4 GACATCGC Rfk  
Stk19\_1 CTTAAAGG Stk19  
Stk19\_2 GCATCCTC( Stk19  
Stk19\_3 TCACGGAA Stk19  
Stk19\_4 TCTGGTGC Stk19  
Tyk2\_1 ATCCACAT( Tyk2  
Tyk2\_2 CTTCCAGG Tyk2  
Tyk2\_3 GTGTGGTT Tyk2  
Tyk2\_4 TAGACCCC Tyk2  
Camkk1\_1 AGCACTGC Camkk1

Camkk1\_2 CACCATCG Camkk1  
Camkk1\_3 GGTCTCAC Camkk1  
Camkk1\_4 TCAATTTG Camkk1  
Dgke\_1 ACAAGAAA Dgke  
Dgke\_2 GATCATGC Dgke  
Dgke\_3 GTCCACGA Dgke  
Dgke\_4 TCTCGTAG Dgke  
Nagk\_1 AGTCCCTA Nagk  
Nagk\_2 CTGGAACA Nagk  
Nagk\_3 TGAAAAC T Nagk  
Nagk\_4 TTGACATG Nagk  
Mpp5\_1 AGATAACC Mpp5  
Mpp5\_2 ATAAGCCG Mpp5  
Mpp5\_3 TGAAAGTA Mpp5  
Mpp5\_4 TTCTGGTG Mpp5  
Ak3\_1 AATGTTGT Ak3  
Ak3\_2 ATTCAACC Ak3  
Ak3\_3 CAGCCAGC Ak3  
Ak3\_4 TGTTGTAG Ak3  
Stk3\_1 AATATTCT Stk3  
Stk3\_2 ATGCTGAT Stk3  
Stk3\_3 CTCAGGAG Stk3  
Stk3\_4 CTGTAACA Stk3  
Pfkp\_1 AAGGAAGC Pfkp  
Pfkp\_2 CAATCTGT Pfkp  
Pfkp\_3 GAAGTATT Pfkp  
Pfkp\_4 TTAGATCA Pfkp  
Aldh18a1\_1 CAAGTCTA Aldh18a1  
Aldh18a1\_2 CGATGGGC Aldh18a1  
Aldh18a1\_3 CGTCCGAG Aldh18a1  
Aldh18a1\_4 TGAGGGG Aldh18a1  
Tbk1\_1 CAACATCA Tbk1  
Tbk1\_2 CGGGAACA Tbk1  
Tbk1\_3 CTTCTCGC Tbk1  
Tbk1\_4 TGCCGTTT Tbk1  
Ikbke\_1 ATGATCTC Ikbke  
Ikbke\_2 CATCGTGA Ikbke  
Ikbke\_3 TCCATCGG Ikbke  
Ikbke\_4 TGTCCAGC Ikbke  
Srp3\_1 ACTTACCA Srp3  
Srp3\_2 GCAGAGGC Srp3  
Srp3\_3 GTTCAATG Srp3  
Srp3\_4 TAAGTGCA Srp3  
Nme4\_1 GCAACCAG Nme4  
Nme4\_2 GGTCTGGC Nme4  
Nme4\_3 TGAAGCCA Nme4  
Nme4\_4 TGATACAA Nme4



Mpp6\_1 AAATTATT/ Mpp6  
Mpp6\_2 AGAGCTAG Mpp6  
Mpp6\_3 GGAGGAA/ Mpp6  
Mpp6\_4 GTGAATAC Mpp6  
Mast1\_1 ACTCCATG/ Mast1  
Mast1\_2 CCAGTTCA/ Mast1  
Mast1\_3 GCTGTCGG Mast1  
Mast1\_4 GGAGCGA/ Mast1  
Ripk3\_1 CGGACACC Ripk3  
Ripk3\_2 GAGTTAAT Ripk3  
Ripk3\_3 GGCCTGTC Ripk3  
Ripk3\_4 GTGTAGGA/ Ripk3  
Ick\_1 AGAATGCA Ick  
Ick\_2 GGGGCTG( Ick  
Ick\_3 TACCGCCC Ick  
Ick\_4 TAGAGACA Ick  
Rps6ka4\_1 ACAGCTGG Rps6ka4  
Rps6ka4\_2 AGTGATGC Rps6ka4  
Rps6ka4\_3 CATGCAGA Rps6ka4  
Rps6ka4\_4 CCAGCACC Rps6ka4  
Sphk2\_1 AGAGAGAC Sphk2  
Sphk2\_2 AGCTACGC Sphk2  
Sphk2\_3 GCAGCGCT Sphk2  
Sphk2\_4 TCCACGGT/ Sphk2  
Gsk3b\_1 ACTGTAAC Gsk3b  
Gsk3b\_2 CGTACCTT( Gsk3b  
Gsk3b\_3 CTGTATCA/ Gsk3b  
Gsk3b\_4 TATCTGTT( Gsk3b  
Lamtor3\_1 ACGGAATA Lamtor3  
Lamtor3\_2 ATTGTTGT( Lamtor3  
Lamtor3\_3 GTCTGTTG/ Lamtor3  
Lamtor3\_4 TCCTGTAC/ Lamtor3  
Mtor\_1 CCCTGTAA/ Mtor  
Mtor\_2 GCAGCACT Mtor  
Mtor\_3 GCTGATGC Mtor  
Mtor\_4 TGCAGTCT/ Mtor  
Brd4\_1 ACTGCAAT/ Brd4  
Brd4\_2 AGCCATGG Brd4  
Brd4\_3 CCGCCAAG Brd4  
Brd4\_4 TTTGGTAC/ Brd4  
Stk32c\_1 ACAAGCAG Stk32c  
Stk32c\_2 CCATATCG/ Stk32c  
Stk32c\_3 GCTGGGAC Stk32c  
Stk32c\_4 TTGCTCGA/ Stk32c  
Tk2\_1 AGAATCGC Tk2  
Tk2\_2 CTCCAATA/ Tk2  
Tk2\_3 TACCATGA/ Tk2

Tk2\_4 TTGAGGGC Tk2  
Adck2\_1 AGCGAACC Adck2  
Adck2\_2 CCTCTGAA Adck2  
Adck2\_3 GAATATCC Adck2  
Adck2\_4 GCTTAGCT Adck2  
Stk4\_1 AATACACC Stk4  
Stk4\_2 TATCTGAT Stk4  
Stk4\_3 TGCTGATA Stk4  
Stk4\_4 TTCAGGAG Stk4  
Trpm7\_1 AAAACTAT Trpm7  
Trpm7\_2 AGAAAGAT Trpm7  
Trpm7\_3 AGATGCTC Trpm7  
Trpm7\_4 TCCAGGGT Trpm7  
Tssk3\_1 AAATTATA Tssk3  
Tssk3\_2 AGGTGCTA Tssk3  
Tssk3\_3 CTCACACT Tssk3  
Tssk3\_4 GAATAGCC Tssk3  
Rps6kb2\_1 AACCCAC Rps6kb2  
Rps6kb2\_2 AGTGAGCA Rps6kb2  
Rps6kb2\_3 CAAGGACA Rps6kb2  
Rps6kb2\_4 GCAGCCCT Rps6kb2  
Stk25\_1 ATATAGGC Stk25  
Stk25\_2 CAAATGAG Stk25  
Stk25\_3 GGAACAGC Stk25  
Stk25\_4 TGATATAA Stk25  
Pnkp\_1 AAGTGCTC Pnkp  
Pnkp\_2 CCGACGTT Pnkp  
Pnkp\_3 GCTGAGCT Pnkp  
Pnkp\_4 TCTCTGGG Pnkp  
Nek7\_1 AAGGCATT Nek7  
Nek7\_2 GATCATT Nek7  
Nek7\_3 GCCACTGG Nek7  
Nek7\_4 TCTCGAAG Nek7  
Nek6\_1 AGAAGCGC Nek6  
Nek6\_2 GATACTTG Nek6  
Nek6\_3 TCCCGACG Nek6  
Nek6\_4 TGGCCGAC Nek6  
Fn3k\_1 AAGACTCG Fn3k  
Fn3k\_2 AAGGTGAT Fn3k  
Fn3k\_3 CAAGGTCA Fn3k  
Fn3k\_4 CGACCTTC Fn3k  
Stk32b\_1 AACGGACT Stk32b  
Stk32b\_2 CATCCCCT Stk32b  
Stk32b\_3 CCCTGGGT Stk32b  
Stk32b\_4 CCGACTGG Stk32b  
Zak\_1 AATAGCGC Zak  
Zak\_2 GCTTGTAG Zak

Zak\_3 TGC GTGGA Zak  
Zak\_4 TGTGTGGT Zak  
Cks2\_1 ACTTGTTT/ Cks2  
Cks2\_2 CTTGGTGT/ Cks2  
Cks2\_3 TCGATGAG Cks2  
Cks2\_4 TGATGTCC/ Cks2  
Tab1\_1 AAAC TCGG Tab1  
Tab1\_2 AAATAACT/ Tab1  
Tab1\_3 ACGCTGAA Tab1  
Tab1\_4 TTGTGCTG/ Tab1  
Ntpcr\_1 ACACTCAC/ Ntpcr  
Ntpcr\_2 CAGTACCC Ntpcr  
Ntpcr\_3 GAAAGCCC Ntpcr  
Ntpcr\_4 TGATACAC Ntpcr  
Fastk\_1 CAAAGCCA Fastk  
Fastk\_2 GCCAGAAC Fastk  
Fastk\_3 TAGCGTCG Fastk  
Fastk\_4 TGGTGTGA Fastk  
Cmpk1\_1 AAGAATCC Cmpk1  
Cmpk1\_2 ACACGACC Cmpk1  
Cmpk1\_3 GCGCGCGC Cmpk1  
Cmpk1\_4 TCAAGGTT Cmpk1  
Actr2\_1 AAGTGAGC Actr2  
Actr2\_2 GATGGACC Actr2  
Actr2\_3 GGAGGCTC Actr2  
Actr2\_4 GGATGACA Actr2  
Lrrk2\_1 AAGGAACT Lrrk2  
Lrrk2\_2 ATTGGCTG Lrrk2  
Lrrk2\_3 GCATCTAG Lrrk2  
Lrrk2\_4 TTAGTGAG Lrrk2  
Riok3\_1 ACGCCTAC Riok3  
Riok3\_2 ACGTAAGA Riok3  
Riok3\_3 AGTATCCT/ Riok3  
Riok3\_4 TCTTTCATC Riok3  
Rps6ka6\_1 CCTGAAGT Rps6ka6  
Rps6ka6\_2 CTTCAAA/ Rps6ka6  
Rps6ka6\_3 GCCGCGGC Rps6ka6  
Rps6ka6\_4 GCGGGAGC Rps6ka6  
Pi4k2b\_1 CCTTCCCC Pi4k2b  
Pi4k2b\_2 GCTGCCTG Pi4k2b  
Pi4k2b\_3 GGCAGAA/ Pi4k2b  
Pi4k2b\_4 TTGGCTTA/ Pi4k2b  
Mastl\_1 AACATACA Mastl  
Mastl\_2 GAGAACAT Mastl  
Mastl\_3 GCATTCGG Mastl  
Mastl\_4 TGA CTCCA/ Mastl  
Stk35\_1 CGTTCTCG/ Stk35

Stk35\_2 CTGTAGTC Stk35  
Stk35\_3 GAGGGAC Stk35  
Stk35\_4 GGGACAG Stk35  
Brd3\_1 ATTAGCAC Brd3  
Brd3\_2 GAAAACG Brd3  
Brd3\_3 GCAGTACA Brd3  
Brd3\_4 GTGGTGGC Brd3  
Adck3\_1 AGTTCAGT Adck3  
Adck3\_2 CATGCCAC Adck3  
Adck3\_3 CATTGTGA Adck3  
Adck3\_4 CCAGCGAA Adck3  
Col4a3bp\_1 AGACGCCA Col4a3bp  
Col4a3bp\_2 CCAGTTTC Col4a3bp  
Col4a3bp\_3 GTGAAAAC Col4a3bp  
Col4a3bp\_4 TAATCCGG Col4a3bp  
Dcakd\_1 AGGCCTCT Dcakd  
Dcakd\_2 GGATGTCC Dcakd  
Dcakd\_3 GGGCTGTC Dcakd  
Dcakd\_4 GGTGAAAC Dcakd  
Uckl1\_1 ACTCTGAT Uckl1  
Uckl1\_2 AGTATATC Uckl1  
Uckl1\_3 TCTACTCC Uckl1  
Uckl1\_4 TGTGGCCA Uckl1  
Pmvk\_1 AGCTGGTG Pmvk  
Pmvk\_2 CTACAAGG Pmvk  
Pmvk\_3 GCTCTCTG Pmvk  
Pmvk\_4 TGTCTGTA Pmvk  
Nadk2\_1 ACTTCATT Nadk2  
Nadk2\_2 CCTCCGAG Nadk2  
Nadk2\_3 GCCTTACG Nadk2  
Nadk2\_4 GGTGGTAC Nadk2  
Pdgfrl\_1 ATTGTGTA Pdgfrl  
Pdgfrl\_2 CTCTAGAG Pdgfrl  
Pdgfrl\_3 GAGCGTGA Pdgfrl  
Pdgfrl\_4 GTGAAGCA Pdgfrl  
Ak8\_1 GTCCTGAT Ak8  
Ak8\_2 TATCACAA Ak8  
Ak8\_3 TCTTGGCT Ak8  
Ak8\_4 TGGTAGAA Ak8  
Xrcc6bp1\_1 CAAACGCG Xrcc6bp1  
Xrcc6bp1\_2 CTTGATGC Xrcc6bp1  
Xrcc6bp1\_3 GCACGCCA Xrcc6bp1  
Xrcc6bp1\_4 GTCTGCGA Xrcc6bp1  
Pink1\_1 CATGGTGG Pink1  
Pink1\_2 CCAGCCCA Pink1  
Pink1\_3 CGAGGAAAC Pink1  
Pink1\_4 GTCGGAAC Pink1

Phkg2\_1 AATGTGCA Phkg2  
Phkg2\_2 CATGAAGC Phkg2  
Phkg2\_3 CGGTAGCT Phkg2  
Phkg2\_4 GTAGCATC Phkg2  
Cdk12\_1 ACAGGAAC Cdk12  
Cdk12\_2 AGGACCGC Cdk12  
Cdk12\_3 AGGGAGAC Cdk12  
Cdk12\_4 GTCCTTAC Cdk12  
Dyrk2\_1 AAAAATCT Dyrk2  
Dyrk2\_2 ACAGCCCA Dyrk2  
Dyrk2\_3 GGATGTAC Dyrk2  
Dyrk2\_4 GGTGGTTA Dyrk2  
Cdk13\_1 ACGTAGCC Cdk13  
Cdk13\_2 CACAGTTA Cdk13  
Cdk13\_3 GCAGCAGT Cdk13  
Cdk13\_4 TATATGGA Cdk13  
Nmrk2\_1 GCACGGTC Nmrk2  
Nmrk2\_2 GGACCAA Nmrk2  
Nmrk2\_3 TGAGCGCC Nmrk2  
Nmrk2\_4 TGTACAGT Nmrk2  
Fastkd3\_1 ACAACTCG Fastkd3  
Fastkd3\_2 AGGGGTCT Fastkd3  
Fastkd3\_3 GCTCTTCG Fastkd3  
Fastkd3\_4 GGAAATGA Fastkd3  
Dapk1\_1 CCTGCGGC Dapk1  
Dapk1\_2 GCCACCAG Dapk1  
Dapk1\_3 TGGAAGCC Dapk1  
Dapk1\_4 TTCCGTCA Dapk1  
Ipmk\_1 AGACGCCG Ipmk  
Ipmk\_2 ATCTTCAC Ipmk  
Ipmk\_3 CAAACGAT Ipmk  
Ipmk\_4 CTCTACCT Ipmk  
Cad\_1 AGGATTAG Cad  
Cad\_2 ATGGTGAC Cad  
Cad\_3 CGCAGGGC Cad  
Cad\_4 CTCAGAAA Cad  
Wnk4\_1 CGAGCGGC Wnk4  
Wnk4\_2 GTACGAGC Wnk4  
Wnk4\_3 GTCCCAGA Wnk4  
Wnk4\_4 TGGAGTCG Wnk4  
Vrk2\_1 AGCAAAGC Vrk2  
Vrk2\_2 ATGATATG Vrk2  
Vrk2\_3 CCCATTGG Vrk2  
Vrk2\_4 TCCAAAAG Vrk2  
Agk\_1 AGTACTGA Agk  
Agk\_2 ATATTGCA Agk  
Agk\_3 CTCTGAAA Agk

Agk\_4 GAAATACC Agk  
Galk2\_1 GCTGCCTG Galk2  
Galk2\_2 GGATAATG Galk2  
Galk2\_3 GGGGCTCC Galk2  
Galk2\_4 TAAATACT Galk2  
Stk26\_1 AATGCATA Stk26  
Stk26\_2 CCAAAACG Stk26  
Stk26\_3 CCAATGCT Stk26  
Stk26\_4 GGATGCAT Stk26  
Csnk1g3\_1 ATTACCTT Csnk1g3  
Csnk1g3\_2 CACGGCCC Csnk1g3  
Csnk1g3\_3 GTTGGGAA Csnk1g3  
Csnk1g3\_4 TCGCGTTG Csnk1g3  
Cpne3\_1 ATTCGGGC Cpne3  
Cpne3\_2 GCTGATGG Cpne3  
Cpne3\_3 TAAGAAGC Cpne3  
Cpne3\_4 TGAATACG Cpne3  
Pak4\_1 GAAAAGGC Pak4  
Pak4\_2 GGACCCCA Pak4  
Pak4\_3 GGACTACC Pak4  
Pak4\_4 TTTGCCTG Pak4  
Sik3\_1 AAGAGGAC Sik3  
Sik3\_2 CATTGACA Sik3  
Sik3\_3 CTGGTGAC Sik3  
Sik3\_4 TCTGAATC Sik3  
Dclk2\_1 AGTAGGAC Dclk2  
Dclk2\_2 CATTAAAC Dclk2  
Dclk2\_3 TAGATGGT Dclk2  
Dclk2\_4 TCTTCTCC Dclk2  
Pgm2l1\_1 ATACTTAC Pgm2l1  
Pgm2l1\_2 TACAGTAA Pgm2l1  
Pgm2l1\_3 TCATTCCA Pgm2l1  
Pgm2l1\_4 TGGACATG Pgm2l1  
Cdk1\_1 ACGAGCTG Cdk1  
Cdk1\_2 ATTGCCCA Cdk1  
Cdk1\_3 CAGGGACA Cdk1  
Cdk1\_4 TGGACCAG Cdk1  
Tssk4\_1 CATATCGT Tssk4  
Tssk4\_2 CTCCTCCA Tssk4  
Tssk4\_3 TAAGAAGC Tssk4  
Tssk4\_4 TTTCTGAC Tssk4  
Rbks\_1 AAAGGCGC Rbks  
Rbks\_2 CAATAAAA Rbks  
Rbks\_3 CCGCACTA Rbks  
Rbks\_4 TTCATTAT Rbks  
Riok1\_1 AGAACTCC Riok1  
Riok1\_2 GGACGCTA Riok1

Riok1\_3 TACTATGC Riok1  
Riok1\_4 TTCCTTTAC Riok1  
Ptk7\_1 CTTGCGCA Ptk7  
Ptk7\_2 GAGCGTAC Ptk7  
Ptk7\_3 TGTCTGTC Ptk7  
Ptk7\_4 TGTTGTTG Ptk7  
Alpk1\_1 CCAGAGAC Alpk1  
Alpk1\_2 GGTGCACT Alpk1  
Alpk1\_3 TATGACTG Alpk1  
Alpk1\_4 TTGTCCGA Alpk1  
Ulk3\_1 AGTGGTAC Ulk3  
Ulk3\_2 GAACTGCA Ulk3  
Ulk3\_3 GCGGCAGT Ulk3  
Ulk3\_4 GTTGCAGC Ulk3  
Map3k13\_1 AGTGTGTA Map3k13  
Map3k13\_2 CTGAAAGA Map3k13  
Map3k13\_3 GGTCACGC Map3k13  
Map3k13\_4 TTCCAATC Map3k13  
Adck1\_1 CAGGTCAT Adck1  
Adck1\_2 GAAGCGTC Adck1  
Adck1\_3 GGGAGGTG Adck1  
Adck1\_4 GTTGCATG Adck1  
Adpgk\_1 ATGCTGCT Adpgk  
Adpgk\_2 CCAGGTAC Adpgk  
Adpgk\_3 CTCTCACG Adpgk  
Adpgk\_4 GCTGGCCA Adpgk  
Strada\_1 AAGTCCGA Strada  
Strada\_2 GAGAGTAT Strada  
Strada\_3 GATACGGT Strada  
Strada\_4 GTCACATC Strada  
Ripk4\_1 ATCGTGCA Ripk4  
Ripk4\_2 CATGTTTG Ripk4  
Ripk4\_3 CTGCAGTC Ripk4  
Ripk4\_4 TCCTGGCA Ripk4  
Lrpprc\_1 AGCTGATA Lrpprc  
Lrpprc\_2 CCGAACTG Lrpprc  
Lrpprc\_3 GAAAGACC Lrpprc  
Lrpprc\_4 GAATAGCC Lrpprc  
Rps6kb1\_1 AATGATAG Rps6kb1  
Rps6kb1\_2 ACTTCGGG Rps6kb1  
Rps6kb1\_3 CTCTTAGC Rps6kb1  
Rps6kb1\_4 TATTCATG Rps6kb1  
Pan3\_1 CAACAGAC Pan3  
Pan3\_2 CGGACTCG Pan3  
Pan3\_3 GCTACTGC Pan3  
Pan3\_4 GGCACCGA Pan3  
Rps6ka5\_1 CATGTAGT Rps6ka5

Rps6ka5\_2 CCTGGATT Rps6ka5  
Rps6ka5\_3 CTTTACCTC Rps6ka5  
Rps6ka5\_4 GATTCGGG Rps6ka5  
Cib4\_1 AAAGGAG/ Cib4  
Cib4\_2 AAGGTACC Cib4  
Cib4\_3 GACCTGGT Cib4  
Cib4\_4 GTACCTAC/ Cib4  
Nme8\_1 ACAGGTGC Nme8  
Nme8\_2 ATTCACAG Nme8  
Nme8\_3 GAACAAAG Nme8  
Nme8\_4 GAGGCAA/ Nme8  
Irak3\_1 ACGCATGC Irak3  
Irak3\_2 ATTGAAAA Irak3  
Irak3\_3 TCGAACGT Irak3  
Irak3\_4 TCTACCAT/ Irak3  
Arsg\_1 ATCCCATA` Arsg  
Arsg\_2 CTACCTTA( Arsg  
Arsg\_3 CTTCGCAG` Arsg  
Arsg\_4 TCGTGGAT Arsg  
Crot\_1 AAGTGCTC Crot  
Crot\_2 CCGGGACA/ Crot  
Crot\_3 GGAGATCC Crot  
Crot\_4 TGGAATAC Crot  
Nuak2\_1 AGTCATTG Nuak2  
Nuak2\_2 CGGGCAG( Nuak2  
Nuak2\_3 GCCTCGCC Nuak2  
Nuak2\_4 TGTAATCA` Nuak2  
Stk40\_1 AGAGCAG( Stk40  
Stk40\_2 GGGCAAG( Stk40  
Stk40\_3 GTTGGTGA Stk40  
Stk40\_4 TCGAGGAC Stk40  
Lrguk\_1 ATCACGAA Lrguk  
Lrguk\_2 GCTCACAC Lrguk  
Lrguk\_3 GGCACCAC Lrguk  
Lrguk\_4 GTTGCCAG Lrguk  
Pank2\_1 AAAGCAG( Pank2  
Pank2\_2 CGAGTAGC Pank2  
Pank2\_3 GGATCCGT Pank2  
Pank2\_4 GTCCGCAG Pank2  
Pck2\_1 AGGGTTTG Pck2  
Pck2\_2 ATGGAAG( Pck2  
Pck2\_3 TGATTGTA Pck2  
Pck2\_4 TGCGTATT/ Pck2  
Mikl\_1 AGGAACAT Mikl  
Mikl\_2 GATGCAGT Mikl  
Mikl\_3 GCACACGC Mikl  
Mikl\_4 GGCTGCGC Mikl



Shpk\_1 CATGGTTT Shpk  
Shpk\_2 GACCAGAA Shpk  
Shpk\_3 GCAGGCTC Shpk  
Shpk\_4 GTAAGGG/ Shpk  
Pomk\_1 CACATGAC Pomk  
Pomk\_2 CCCATTCT Pomk  
Pomk\_3 CGCCACGT Pomk  
Pomk\_4 GAGTGAGC Pomk  
Snx16\_1 GTTACGAG Snx16  
Snx16\_2 TCAGAACC Snx16  
Snx16\_3 TCATTAGG Snx16  
Snx16\_4 TCTAGGCT Snx16  
Pik3cb\_1 ACGGACGC Pik3cb  
Pik3cb\_2 ATTAGCTT/ Pik3cb  
Pik3cb\_3 CATTCCAC/ Pik3cb  
Pik3cb\_4 TATGTCCG/ Pik3cb  
Prkd3\_1 CCAGTAAG Prkd3  
Prkd3\_2 CTGAACCT/ Prkd3  
Prkd3\_3 GATAAACA Prkd3  
Prkd3\_4 TGAAATCA Prkd3  
Etnk1\_1 ATAATCTA/ Etnk1  
Etnk1\_2 CATTGTGC/ Etnk1  
Etnk1\_3 CTGTGCTA/ Etnk1  
Etnk1\_4 TGGAAGAT Etnk1  
Prps1l1\_1 AGGAGAA/ Prps1l1  
Prps1l1\_2 CAAGAGGC Prps1l1  
Prps1l1\_3 GATGTCTA Prps1l1  
Prps1l1\_4 GGGCCTCG Prps1l1  
Nme5\_1 AAAAGTTA Nme5  
Nme5\_2 GCTAATAT/ Nme5  
Nme5\_3 TATACGGT Nme5  
Nme5\_4 TCCCATAA/ Nme5  
Fggy\_1 AACATCAT/ Fggy  
Fggy\_2 CAAGACAA Fggy  
Fggy\_3 CTTTCCTG/ Fggy  
Fggy\_4 TCACACCA/ Fggy  
Wnk2\_1 CGAGGAAC Wnk2  
Wnk2\_2 GGGATTAC Wnk2  
Wnk2\_3 GTGCACGA Wnk2  
Wnk2\_4 TTTGGCAC/ Wnk2  
Fastkd2\_1 ATAAGCTT/ Fastkd2  
Fastkd2\_2 ATGTGAAT Fastkd2  
Fastkd2\_3 TAGCATTAA Fastkd2  
Fastkd2\_4 TGAAAGAC Fastkd2  
Pik3r4\_1 CTGGCGAA Pik3r4  
Pik3r4\_2 GGGTACTG Pik3r4  
Pik3r4\_3 TAGATATT/ Pik3r4

Pik3r4\_4 TCTCATGT/ Pik3r4  
Ippk\_1 AGAGAACT Ippk  
Ippk\_2 ATCACAGC Ippk  
Ippk\_3 GTCCCCTC( Ippk  
Ippk\_4 TCTCTACA( Ippk  
Idnk\_1 CCTTAGTA\ Idnk  
Idnk\_2 GATGTTAC Idnk  
Idnk\_3 TGCCGATG Idnk  
Idnk\_4 TTCTCTCC\ Idnk  
Pank1\_1 AAAGTAAA Pank1  
Pank1\_2 ACACTGCC Pank1  
Pank1\_3 CCATGTTA\ Pank1  
Pank1\_4 GGACAACT Pank1  
Mpp7\_1 ACTGTGGC Mpp7  
Mpp7\_2 AGGAGGT( Mpp7  
Mpp7\_3 GCCAAGAT Mpp7  
Mpp7\_4 GCTGTCAG Mpp7  
Brsk2\_1 AGAACGGT Brsk2  
Brsk2\_2 CCTGCGTG Brsk2  
Brsk2\_3 CTGGCTCG Brsk2  
Brsk2\_4 GGGGACT\ Brsk2  
Ip6k2\_1 AATAGCAT Ip6k2  
Ip6k2\_2 CTGATGCT( Ip6k2  
Ip6k2\_3 GACACAAG Ip6k2  
Ip6k2\_4 GTCATCGG Ip6k2  
Ckmt2\_1 CCTATTCA( Ckmt2  
Ckmt2\_2 GACACCCA Ckmt2  
Ckmt2\_3 TCGGCCAG Ckmt2  
Ckmt2\_4 TGGTGATG Ckmt2  
Morn1\_1 ACAACAAG Morn1  
Morn1\_2 AGCTGTAC Morn1  
Morn1\_3 GCACTTTC( Morn1  
Morn1\_4 GTCATGAA Morn1  
Adck4\_1 ACTAAGAA Adck4  
Adck4\_2 ATGAGTGT Adck4  
Adck4\_3 GACCTTAT( Adck4  
Adck4\_4 GCTAAAGC Adck4  
Stk31\_1 AGCACTCT( Stk31  
Stk31\_2 CAGTATTA\ Stk31  
Stk31\_3 GGAGCAA( Stk31  
Stk31\_4 GTATGGCA Stk31  
Nuak1\_1 ATTGGCAT Nuak1  
Nuak1\_2 TCTCGGGC Nuak1  
Nuak1\_3 TGATGTCG Nuak1  
Nuak1\_4 TTTACCCC( Nuak1  
Cdk19\_1 AATGGCCT Cdk19  
Cdk19\_2 GGAGGTA\ Cdk19

Cdk19\_3 TATGCACT Cdk19  
Cdk19\_4 TGAGTACG Cdk19  
Ak7\_1 CTCCAAAC Ak7  
Ak7\_2 GGAGAACT Ak7  
Ak7\_3 GGAGGCG Ak7  
Ak7\_4 TCTCCCTTA Ak7  
Scyl1\_1 ACCCATTA Scyl1  
Scyl1\_2 AGAACATC Scyl1  
Scyl1\_3 CATCGAAT Scyl1  
Scyl1\_4 GGGTCTGG Scyl1  
Ern1\_1 ACATCCTG Ern1  
Ern1\_2 CCTTCTCT Ern1  
Ern1\_3 GGCTGCAT Ern1  
Ern1\_4 GGGGAATC Ern1  
Nme3\_1 CATGAGTT Nme3  
Nme3\_2 GGTGGCAC Nme3  
Nme3\_3 TGCTTCGC Nme3  
Nme3\_4 TTAACCAG Nme3  
Sh3bp5l\_1 CATGGCTG Sh3bp5l  
Sh3bp5l\_2 CTCCTGCA Sh3bp5l  
Sh3bp5l\_3 GACCAAAT Sh3bp5l  
Sh3bp5l\_4 GGGAGCA Sh3bp5l  
Hspb8\_1 AGAGCGG Hspb8  
Hspb8\_2 GGTCTGGC Hspb8  
Hspb8\_3 TAGGTTTG Hspb8  
Hspb8\_4 TGCCAAAG Hspb8  
Uck2\_1 CAATTCAA Uck2  
Uck2\_2 CCCTTCGA Uck2  
Uck2\_3 GATACCCG Uck2  
Uck2\_4 GGGAGAC Uck2  
Tex14\_1 CCTGGTAA Tex14  
Tex14\_2 GAACATCC Tex14  
Tex14\_3 GTTTACGA Tex14  
Tex14\_4 TGAATGAG Tex14  
Tnk1\_1 AATGGCCG Tnk1  
Tnk1\_2 CTCACCTC Tnk1  
Tnk1\_3 GCCAAACA Tnk1  
Tnk1\_4 GGGTTATG Tnk1  
Tssk6\_1 CACCTCAG Tssk6  
Tssk6\_2 CGAAATCC Tssk6  
Tssk6\_3 TGAGGTCG Tssk6  
Tssk6\_4 TGGGAAGC Tssk6  
Pi4k2a\_1 ATTGATCG Pi4k2a  
Pi4k2a\_2 CACTTTCC Pi4k2a  
Pi4k2a\_3 GCTGTCGG Pi4k2a  
Pi4k2a\_4 TTAGGGTT Pi4k2a  
Csnk1a1\_1 AAAGGTGC Csnk1a1

Csnk1a1\_2 CACATCTT Csnk1a1  
Csnk1a1\_3 CTGGTCAG Csnk1a1  
Csnk1a1\_4 TTGCTCTC Csnk1a1  
Pnck\_1 ATTCCCAA Pnck  
Pnck\_2 GATCGCTC Pnck  
Pnck\_3 GGAGCAG Pnck  
Pnck\_4 TCCACCTC Pnck  
Trim33\_1 ACAAACTG Trim33  
Trim33\_2 ACAACATT Trim33  
Trim33\_3 AGAATGCT Trim33  
Trim33\_4 GATCCAGG Trim33  
Stk17b\_1 CGGCTAAC Stk17b  
Stk17b\_2 CTCATGCA Stk17b  
Stk17b\_3 GAGCAGT Stk17b  
Stk17b\_4 TTACCACA Stk17b  
Sh3bp4\_1 GCAGGACC Sh3bp4  
Sh3bp4\_2 GGAGATG Sh3bp4  
Sh3bp4\_3 GTAGTTTA Sh3bp4  
Sh3bp4\_4 TGAAGTCG Sh3bp4  
Clp1\_1 CCAAGGCT Clp1  
Clp1\_2 GAGCCAAA Clp1  
Clp1\_3 GAGTAGCA Clp1  
Clp1\_4 GGCCGACC Clp1  
Magi3\_1 AAATGATA Magi3  
Magi3\_2 CATCAGGA Magi3  
Magi3\_3 CCTGATCT Magi3  
Magi3\_4 GAAATGGC Magi3  
Trrap\_1 ACCAAGGC Trrap  
Trrap\_2 ACGTCGTG Trrap  
Trrap\_3 CCACATAT Trrap  
Trrap\_4 GGTAAAGA Trrap  
Dyrk4\_1 AATATTGT Dyrk4  
Dyrk4\_2 AGTAGAAC Dyrk4  
Dyrk4\_3 TCTGGGAC Dyrk4  
Dyrk4\_4 TCTTACCT Dyrk4  
Prkd2\_1 ACTGTACC Prkd2  
Prkd2\_2 GCAACTAG Prkd2  
Prkd2\_3 GGAAGCCC Prkd2  
Prkd2\_4 TTTGTGGG Prkd2  
Vrk3\_1 CAGACCAG Vrk3  
Vrk3\_2 CCCC GTGG Vrk3  
Vrk3\_3 CCTGGAAC Vrk3  
Vrk3\_4 GGATGACA Vrk3  
Phkb\_1 AACGCAGC Phkb  
Phkb\_2 AAGCGGTT Phkb  
Phkb\_3 CCGTGTTA Phkb  
Phkb\_4 TCGCCAT Phkb

Clk3\_1 ATGATCGT Clk3  
Clk3\_2 CGCCGATC Clk3  
Clk3\_3 GGTCTTCA Clk3  
Clk3\_4 TAGGCCAT Clk3  
Xylb\_1 CGATGGGC Xylb  
Xylb\_2 GCCTTCAG Xylb  
Xylb\_3 GTACCTAC Xylb  
Xylb\_4 TTATTCCC Xylb  
Mapkapk3\_AAACCTAC Mapkapk3  
Mapkapk3\_ACATAATA Mapkapk3  
Mapkapk3\_GCCCAGGC Mapkapk3  
Mapkapk3\_GGGTCCCC Mapkapk3  
Csnk1g2\_1 TCACTCGC Csnk1g2  
Csnk1g2\_2 TCTGTATA Csnk1g2  
Csnk1g2\_3 TGTCCAAA Csnk1g2  
Csnk1g2\_4 TTGTGGGA Csnk1g2  
Gck\_1 AAGGCACC Gck  
Gck\_2 CCAGATGT Gck  
Gck\_3 CCATCCGG Gck  
Gck\_4 TTCTGGGG Gck  
Sbk1\_1 CACTGGCA Sbk1  
Sbk1\_2 CCACCGCG Sbk1  
Sbk1\_3 GCTTCACA Sbk1  
Sbk1\_4 GTCGACCT Sbk1  
Csnk1d\_1 CGGAGACA Csnk1d  
Csnk1d\_2 GGTCTTGG Csnk1d  
Csnk1d\_3 TGTAGATC Csnk1d  
Csnk1d\_4 TGTCATCA Csnk1d  
Dgkz\_1 CAAGTCTT Dgkz  
Dgkz\_2 GACCCAGT Dgkz  
Dgkz\_3 TGGGAAA C Dgkz  
Dgkz\_4 TTCAGAAA Dgkz  
Cdk20\_1 CGGCCAGA Cdk20  
Cdk20\_2 CTCACCAT Cdk20  
Cdk20\_3 GATGCACA Cdk20  
Cdk20\_4 GCACAAAG Cdk20  
Prkaa1\_1 ATCACCAT Prkaa1  
Prkaa1\_2 CCTGTGAC Prkaa1  
Prkaa1\_3 GAAGATTC Prkaa1  
Prkaa1\_4 GATCGGCC Prkaa1  
Pkdcc\_1 ACTGCGCG Pkdcc  
Pkdcc\_2 CACTGCTT Pkdcc  
Pkdcc\_3 GCAGTTTG Pkdcc  
Pkdcc\_4 GGTGCAGC Pkdcc  
Ttbk1\_1 AAGGCCAT Ttbk1  
Ttbk1\_2 GCGGTCTC Ttbk1  
Ttbk1\_3 GTGTGCAT Ttbk1

Ttbk1\_4 GTTCTTGT(Ttbk1  
Mylk\_1 CTGCACGT Mylk  
Mylk\_2 GAAGCCAA Mylk  
Mylk\_3 GGTATACC Mylk  
Mylk\_4 TGTCATCC Mylk  
Pi4kb\_1 CCACTCAG Pi4kb  
Pi4kb\_2 CTTGATGA Pi4kb  
Pi4kb\_3 GGCTCCCT Pi4kb  
Pi4kb\_4 TGATGATG Pi4kb  
Cdk9\_1 ACTCGTAG Cdk9  
Cdk9\_2 CAACCGAT Cdk9  
Cdk9\_3 CTTGCAGC Cdk9  
Cdk9\_4 GCACCCCA Cdk9  
Camk2d\_1 ACTTCACG Camk2d  
Camk2d\_2 ATTACATA Camk2d  
Camk2d\_3 GATGTAGA Camk2d  
Camk2d\_4 TAATGCTA Camk2d  
Prkaa2\_1 ACAGCTCC Prkaa2  
Prkaa2\_2 CAGAACGC Prkaa2  
Prkaa2\_3 GTGATGAA Prkaa2  
Prkaa2\_4 TCCATAAA Prkaa2  
Pip4k2b\_1 AGCTTACA Pip4k2b  
Pip4k2b\_2 CAGTCTTG Pip4k2b  
Pip4k2b\_3 GCATCGCA Pip4k2b  
Pip4k2b\_4 GGGCATGT Pip4k2b  
Prkab2\_1 AGGAGCAC Prkab2  
Prkab2\_2 GTACAAAC Prkab2  
Prkab2\_3 GTCCTCAC Prkab2  
Prkab2\_4 TTCAGACC Prkab2  
Prkag2\_1 AAGAACAT Prkag2  
Prkag2\_2 CCACTGAA Prkag2  
Prkag2\_3 GCGTTTAT Prkag2  
Prkag2\_4 GGGACGAC Prkag2  
Card11\_1 ACTATGGA Card11  
Card11\_2 CACACACT Card11  
Card11\_3 GCAGCATA Card11  
Card11\_4 GCGACCTC Card11  
Oxsr1\_1 ACAGTAAG Oxsr1  
Oxsr1\_2 ATGATAAG Oxsr1  
Oxsr1\_3 GTCATGAA Oxsr1  
Oxsr1\_4 GTCCTTCT Oxsr1  
Mex3b\_1 ACGTCGCG Mex3b  
Mex3b\_2 AGGTGTAC Mex3b  
Mex3b\_3 CAATGGTT Mex3b  
Mex3b\_4 GACAGACC Mex3b  
Irak2\_1 AGACCAAA Irak2  
Irak2\_2 CCAGGGTC Irak2

Irak2\_3 CCTGTGTC Irak2  
Irak2\_4 GCAGAGG Irak2  
Tpr\_1 AATCGAAA Tpr  
Tpr\_2 ACCCGTCA Tpr  
Tpr\_3 GCCTGGCA Tpr  
Tpr\_4 GGGAAGAC Tpr  
Pkn2\_1 ATAGAATT Pkn2  
Pkn2\_2 CATCGTTG Pkn2  
Pkn2\_3 TGTGCCAG Pkn2  
Pkn2\_4 TTTGAAGC Pkn2  
Braf\_1 CCCACCAT Braf  
Braf\_2 CCTACCCA Braf  
Braf\_3 GGCAGGA Braf  
Braf\_4 TCATAATT Braf  
Phka2\_1 ACAGTAGA Phka2  
Phka2\_2 CAAACAAA Phka2  
Phka2\_3 CACAGAAA Phka2  
Phka2\_4 GGGTCATA Phka2  
Raf1\_1 ACCTGGCG Raf1  
Raf1\_2 GAGAGACT Raf1  
Raf1\_3 GCCGAATA Raf1  
Raf1\_4 GGGTGTAC Raf1  
Dgkg\_1 ACAATGGC Dgkg  
Dgkg\_2 AGAGACAC Dgkg  
Dgkg\_3 CTACAGGA Dgkg  
Dgkg\_4 GAATTATC Dgkg  
Bcr\_1 AACCTAAT Bcr  
Bcr\_2 AGGAGAA Bcr  
Bcr\_3 CAGCGGAC Bcr  
Bcr\_4 CTTTGTGG Bcr  
Adrbk1\_1 AGATTTGT Adrbk1  
Adrbk1\_2 CCAGGTCC Adrbk1  
Adrbk1\_3 CTCTTCGT Adrbk1  
Adrbk1\_4 GAGGCCAC Adrbk1  
Dgkq\_1 AGACGTCC Dgkq  
Dgkq\_2 GAGCCAG Dgkq  
Dgkq\_3 TCGGGCCT Dgkq  
Dgkq\_4 TCTTGGGG Dgkq  
Amhr2\_1 ACAACACG Amhr2  
Amhr2\_2 ACTCAGTA Amhr2  
Amhr2\_3 AGATAGGT Amhr2  
Amhr2\_4 AGGCAGCC Amhr2  
Prps2\_1 GATCGGTG Prps2  
Prps2\_2 GGAGATTA Prps2  
Prps2\_3 GGCTGATC Prps2  
Prps2\_4 GTGGACCC Prps2  
Rps6ka3\_1 AAGCATTC Rps6ka3

Rps6ka3\_2 CCAGAAGT Rps6ka3  
Rps6ka3\_3 TGATGTGC Rps6ka3  
Rps6ka3\_4 TGCAATCA Rps6ka3  
Brdt\_1 ATGGCCCT Brdt  
Brdt\_2 CTGATGAA Brdt  
Brdt\_3 GAAGGTTC Brdt  
Brdt\_4 GACTGCGA Brdt  
Fgfr1\_1 AGCCCATG Fgfr1  
Fgfr1\_2 CACGTGCC Fgfr1  
Fgfr1\_3 CGTGACCA Fgfr1  
Fgfr1\_4 GATGGCCC Fgfr1  
Alpk3\_1 AGCCATGG Alpk3  
Alpk3\_2 GAGGCGA/ Alpk3  
Alpk3\_3 GCTGTCGT Alpk3  
Alpk3\_4 TCTGCGAG Alpk3  
Pip4k2c\_1 AGTGTCGA Pip4k2c  
Pip4k2c\_2 TCCTTGAA/ Pip4k2c  
Pip4k2c\_3 TCTGGCAG Pip4k2c  
Pip4k2c\_4 TTTCGTAC/ Pip4k2c  
Stk33\_1 AGTCGGAC Stk33  
Stk33\_2 ATCGCATA Stk33  
Stk33\_3 ATGTCACA Stk33  
Stk33\_4 TCAGAAAA Stk33  
Bmp2k\_1 AATATAGG Bmp2k  
Bmp2k\_2 AGTCCGCA Bmp2k  
Bmp2k\_3 GGGAGTAC Bmp2k  
Bmp2k\_4 TAAGACTC Bmp2k  
Ttbk2\_1 AAATGATC Ttbk2  
Ttbk2\_2 GAGGGTG/ Ttbk2  
Ttbk2\_3 GGACACG/ Ttbk2  
Ttbk2\_4 TTTATTGT/ Ttbk2  
Nek8\_1 AGGAAACC Nek8  
Nek8\_2 CAAGCGTA Nek8  
Nek8\_3 CTATGGAG Nek8  
Nek8\_4 TCTTGACA/ Nek8  
Sgk3\_1 ACCTCACG Sgk3  
Sgk3\_2 ACTCCATC/ Sgk3  
Sgk3\_3 TGTACCAC Sgk3  
Sgk3\_4 TGTCCATT Sgk3  
Pfkfb3\_1 AAGTACCA Pfkfb3  
Pfkfb3\_2 CATTCTCG( Pfkfb3  
Pfkfb3\_3 TGTCAAAA Pfkfb3  
Pfkfb3\_4 TGTGGGAC Pfkfb3  
Nme7\_1 CATTTCAA( Nme7  
Nme7\_2 CCGCAAAC Nme7  
Nme7\_3 GTAAATTT/ Nme7  
Nme7\_4 TGATCCAG Nme7



Nadk\_1 AAGTTCTG Nadk  
Nadk\_2 AATGAAGT Nadk  
Nadk\_3 AGCTACAA Nadk  
Nadk\_4 TAAACTCA Nadk  
Nrbp1\_1 AAAGTGGT Nrbp1  
Nrbp1\_2 ACTCTGGT Nrbp1  
Nrbp1\_3 TACTAGAA Nrbp1  
Nrbp1\_4 TTGCTGCT Nrbp1  
Ripk2\_1 ACAGCTAT Ripk2  
Ripk2\_2 ACATAAGT Ripk2  
Ripk2\_3 ACATCGAC Ripk2  
Ripk2\_4 AGTTACAA Ripk2  
Camkk2\_1 ACGTGGTG Camkk2  
Camkk2\_2 CATCTTGC Camkk2  
Camkk2\_3 CCTGGTAC Camkk2  
Camkk2\_4 TCATCCTT Camkk2  
Nek11\_1 CCCCATT Nek11  
Nek11\_2 GAACTCAG Nek11  
Nek11\_3 GAGTTGAC Nek11  
Nek11\_4 GCTTGCAT Nek11  
Ulk4\_1 AGAAAAA Ulk4  
Ulk4\_2 CCTCTTTA Ulk4  
Ulk4\_3 CCTGCGGA Ulk4  
Ulk4\_4 CGGCTCCG Ulk4  
Pank3\_1 ACCTATTG Pank3  
Pank3\_2 CCAATATT Pank3  
Pank3\_3 CTTTATCA Pank3  
Pank3\_4 GCTCTGGA Pank3  
Trib1\_1 AGGTAGTC Trib1  
Trib1\_2 CCAGTGAT Trib1  
Trib1\_3 CGGGCACT Trib1  
Trib1\_4 GCAGCCGC Trib1  
Hk3\_1 ACAATCAG Hk3  
Hk3\_2 ATTCCTGG Hk3  
Hk3\_3 TCCTATCC Hk3  
Hk3\_4 TGTTACCC Hk3  
Gsap\_1 ACACCCTG Gsap  
Gsap\_2 ACTATCAC Gsap  
Gsap\_3 AGAATAGC Gsap  
Gsap\_4 CCAGTTAA Gsap  
Cdk13\_1 AAATCCAT Cdk13  
Cdk13\_2 GCAGCTCA Cdk13  
Cdk13\_3 GTATACAT Cdk13  
Cdk13\_4 TACAAATT Cdk13  
Scyl2\_1 AGCTACCT Scyl2  
Scyl2\_2 AGGTCTCC Scyl2  
Scyl2\_3 ATCATTGA Scyl2

Scyl2\_4 CTCAGCGT Scyl2  
Mylk3\_1 AGCAATCG Mylk3  
Mylk3\_2 AGGTGCAC Mylk3  
Mylk3\_3 GAAGGGAC Mylk3  
Mylk3\_4 TCTGGGGC Mylk3  
Dstyk\_1 GATCATCC Dstyk  
Dstyk\_2 GCACTAGT Dstyk  
Dstyk\_3 GCTGCTAC Dstyk  
Dstyk\_4 TGGCCGAC Dstyk  
Pak6\_1 AGAGGACT Pak6  
Pak6\_2 CCTCCACA Pak6  
Pak6\_3 GTACCTCC Pak6  
Pak6\_4 TGCCAAGC Pak6  
Etnk2\_1 ATTGTGAC Etnk2  
Etnk2\_2 CCCATGCT Etnk2  
Etnk2\_3 GATGCATC Etnk2  
Etnk2\_4 GTAGCACA Etnk2  
Csnk1g1\_1 AAGTAAAC Csnk1g1  
Csnk1g1\_2 ATCAACAC Csnk1g1  
Csnk1g1\_3 CAAAGTAA Csnk1g1  
Csnk1g1\_4 CTAATCGC Csnk1g1  
Camk1g\_1 ACTTTGCC Camk1g  
Camk1g\_2 GGACGATC Camk1g  
Camk1g\_3 TGGAGAAC Camk1g  
Camk1g\_4 TTTGACCG Camk1g  
Hkdc1\_1 CAGCGATG Hkdc1  
Hkdc1\_2 CATGAGCA Hkdc1  
Hkdc1\_3 CCCCCAAC Hkdc1  
Hkdc1\_4 TGCCCAAT Hkdc1  
Pdxk\_1 AGGGGTAC Pdxk  
Pdxk\_2 CCACTTTG Pdxk  
Pdxk\_3 CTCTGTTA Pdxk  
Pdxk\_4 GGAACTTC Pdxk  
Plk5\_1 ATGTACCA Plk5  
Plk5\_2 GAAGTGCC Plk5  
Plk5\_3 GCACCATG Plk5  
Plk5\_4 GCGCGGG Plk5  
Taok1\_1 AGATGTGC Taok1  
Taok1\_2 CTTGTGAC Taok1  
Taok1\_3 GAAATAGC Taok1  
Taok1\_4 TTCTATAT Taok1  
Trib2\_1 GAGATCGC Trib2  
Trib2\_2 GATGCACA Trib2  
Trib2\_3 TAGCAACA Trib2  
Trib2\_4 TGCTGCGT Trib2  
Dgkb\_1 ACTGGACA Dgkb  
Dgkb\_2 AGGATGAT Dgkb

Dgkb\_3 CTGGAAAT Dgkb  
Dgkb\_4 TCTCGAAA Dgkb  
Nek9\_1 AGTGAAGT Nek9  
Nek9\_2 ATCATTGT Nek9  
Nek9\_3 CGAGGGCC Nek9  
Nek9\_4 TCTTCACA Nek9  
Itpk1\_1 CGAACTTA Itpk1  
Itpk1\_2 GGTGGGCC Itpk1  
Itpk1\_3 GTTCGAAC Itpk1  
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Cdc42bpb\_ AGCGTTCG Cdc42bpb  
Cdc42bpb\_ ATGGTCGG Cdc42bpb  
Cdc42bpb\_ CTCCTGCT Cdc42bpb  
Cdc42bpb\_ GGAATCGC Cdc42bpb  
Pxx\_1 ACCGTGAG Pxx  
Pxx\_2 AGCAAATA Pxx  
Pxx\_3 AGGACTTG Pxx  
Pxx\_4 CCAGAGTC Pxx  
Stk24\_1 ATATTACG Stk24  
Stk24\_2 GCAGTCAG Stk24  
Stk24\_3 GTRACTATG Stk24  
Stk24\_4 TGAGGAAT Stk24  
Trio\_1 AATGAATG Trio  
Trio\_2 CATCACCC Trio  
Trio\_3 GAGGGCAI Trio  
Trio\_4 GAGGTGCT Trio  
Nrbp2\_1 CTACCACA Nrbp2  
Nrbp2\_2 GCACCTCA Nrbp2  
Nrbp2\_3 GCAGCCGC Nrbp2  
Nrbp2\_4 TCTCAGCC Nrbp2  
Cerk\_1 ACTACCAT Cerk  
Cerk\_2 GATGTCGT Cerk  
Cerk\_3 TCTCCGAC Cerk  
Cerk\_4 TGGGGACC Cerk  
Pim3\_1 ACTTACGA Pim3  
Pim3\_2 GCTGTAGG Pim3  
Pim3\_3 GGTGCACC Pim3  
Pim3\_4 TTCGACTT C Pim3  
Pi4ka\_1 ACATCGAT Pi4ka  
Pi4ka\_2 AGGAACCC Pi4ka  
Pi4ka\_3 GGTATGTA Pi4ka  
Pi4ka\_4 TGTGCTAA Pi4ka  
Pak2\_1 AGGAACTA Pak2  
Pak2\_2 CAGTGAGC Pak2  
Pak2\_3 GGTGTGCT Pak2  
Pak2\_4 TATCTCTG C Pak2  
Map4k3\_1 AAAGTGAT Map4k3

Map4k3\_2 AGGTGGTC Map4k3  
Map4k3\_3 CTATGTGG Map4k3  
Map4k3\_4 CTGCAACT Map4k3  
Pik3c3\_1 AGCCTGTA Pik3c3  
Pik3c3\_2 ATACACAT Pik3c3  
Pik3c3\_3 ATGGACCA Pik3c3  
Pik3c3\_4 CTCACCAA Pik3c3  
Alpk2\_1 CCGACTGG Alpk2  
Alpk2\_2 TATGACGG Alpk2  
Alpk2\_3 TCACCCCA Alpk2  
Alpk2\_4 TCTGGCCA Alpk2  
Mapk4\_1 ACGAGGTC Mapk4  
Mapk4\_2 CAACATTA Mapk4  
Mapk4\_3 GAGCCCGT Mapk4  
Mapk4\_4 GATACATG Mapk4  
Tkfc\_1 CATTGTGA Tkfc  
Tkfc\_2 CTGATAGT Tkfc  
Tkfc\_3 GGATAAGT Tkfc  
Tkfc\_4 GGGTGTCC Tkfc  
Nmrk1\_1 CTTACATT Nmrk1  
Nmrk1\_2 GGAAAACC Nmrk1  
Nmrk1\_3 TGAGATAT Nmrk1  
Nmrk1\_4 TGGCTCAG Nmrk1  
Trpm6\_1 AGAGTGCA Trpm6  
Trpm6\_2 AGGTCATG Trpm6  
Trpm6\_3 TATTCTAT Trpm6  
Trpm6\_4 TGTCAACA Trpm6  
Dyrk3\_1 CCACGGCC Dyrk3  
Dyrk3\_2 CGGTAAGC Dyrk3  
Dyrk3\_3 GAAACGCT Dyrk3  
Dyrk3\_4 TGAATGTG Dyrk3  
Igf1\_1 ACCTTGCA Igfn1  
Igf1\_2 CCTCTGAC Igfn1  
Igf1\_3 GAAAAACC Igfn1  
Igf1\_4 TTCCCTCA Igfn1  
Cdc42bpa\_ ACTGACAT Cdc42bpa  
Cdc42bpa\_ AGCGATGA Cdc42bpa  
Cdc42bpa\_ AGGAACTG Cdc42bpa  
Cdc42bpa\_ TGTAGTAG Cdc42bpa  
Mark1\_1 ACGTAATG Mark1  
Mark1\_2 ATTCTGGC Mark1  
Mark1\_3 TCTAGGTA Mark1  
Mark1\_4 TTGGTCAT Mark1  
Stradb\_1 AACTGTAA Stradb  
Stradb\_2 ACAGCCTG Stradb  
Stradb\_3 CTGCATAG Stradb  
Stradb\_4 TTCATAGT Stradb

Mpp4\_1 ACCTGCCTC Mpp4  
Mpp4\_2 ATGACCTC Mpp4  
Mpp4\_3 CAAGCGTC Mpp4  
Mpp4\_4 CGTGGGCC Mpp4  
Dgkd\_1 ACTCGTTC Dgkd  
Dgkd\_2 AGAGCTGT Dgkd  
Dgkd\_3 AGAGGGC Dgkd  
Dgkd\_4 TAACTGCA Dgkd  
Camk1d\_1 ATCCTTACC Camk1d  
Camk1d\_2 CTGGTGGCA Camk1d  
Camk1d\_3 CTTATACTC Camk1d  
Camk1d\_4 GATATAGG Camk1d  
Dolk\_1 AAAGTATT Dolk  
Dolk\_2 CAGTGTAG Dolk  
Dolk\_3 CCAGCAAA Dolk  
Dolk\_4 GGACCGAT Dolk  
Pip5k1\_1 CATGACCC Pip5k1  
Pip5k1\_2 GCTTCTTTC Pip5k1  
Pip5k1\_3 GGACTCAC Pip5k1  
Pip5k1\_4 TTTCAGGC Pip5k1  
Tlk1\_1 AAGAATGC Tlk1  
Tlk1\_2 AAGTACTA Tlk1  
Tlk1\_3 ATCACACG Tlk1  
Tlk1\_4 TGGGAGAC Tlk1  
Pdk1\_1 AAACACCA Pdk1  
Pdk1\_2 ATGGCTAT Pdk1  
Pdk1\_3 TTGATAGC Pdk1  
Pdk1\_4 TTGTGCA Pdk1  
Cerkl\_1 AAAGTCTC Cerkl  
Cerkl\_2 ACCCCGTT Cerkl  
Cerkl\_3 GAAGTTAA Cerkl  
Cerkl\_4 TGTCCACG Cerkl  
Itpka\_1 AGTGAGCT Itpka  
Itpka\_2 CATCCCGC Itpka  
Itpka\_3 CATGACAG Itpka  
Itpka\_4 CCTGATCC Itpka  
Trib3\_1 AAGGCCCC Trib3  
Trib3\_2 ATCTGATC Trib3  
Trib3\_3 CGGACTCT Trib3  
Trib3\_4 GAGTATCT Trib3  
Mylk2\_1 CAGACACC Mylk2  
Mylk2\_2 CATCAAGA Mylk2  
Mylk2\_3 TGAAGACT Mylk2  
Mylk2\_4 TGCAAGGC Mylk2  
Ak5\_1 ACGTTACC Ak5  
Ak5\_2 AGGATCAG Ak5  
Ak5\_3 CGCCAAGA Ak5

Ak5\_4 TTGGAAGT Ak5  
Npr2\_1 ACAGGACC Npr2  
Npr2\_2 ATGGCAGC Npr2  
Npr2\_3 CAACTCGG Npr2  
Npr2\_4 CAGCGGGC Npr2  
Tesk2\_1 ACAGTGAC Tesk2  
Tesk2\_2 GACAGCCA Tesk2  
Tesk2\_3 TGAAAACG Tesk2  
Tesk2\_4 TGCGGGCC Tesk2  
Epha10\_1 CAGACAGC Epha10  
Epha10\_2 GACTGCAC Epha10  
Epha10\_3 GCGATGGT Epha10  
Epha10\_4 GCTTCACG Epha10  
Pdik1l\_1 AAAGGGA Pdik1l  
Pdik1l\_2 ACACCCAA Pdik1l  
Pdik1l\_3 CTTGGAAC Pdik1l  
Pdik1l\_4 GAGGTAGC Pdik1l  
Gak\_1 CTTACACG Gak  
Gak\_2 GGAACTTA Gak  
Gak\_3 GGGTTTCT Gak  
Gak\_4 TCTGTCAT Gak  
Lmtk2\_1 AATGAGCA Lmtk2  
Lmtk2\_2 AGGCTTTC Lmtk2  
Lmtk2\_3 CCAGTGAG Lmtk2  
Lmtk2\_4 TTGTCACA Lmtk2  
Wnk1\_1 GGTAGCAA Wnk1  
Wnk1\_2 GTTATAGG Wnk1  
Wnk1\_3 TGAAGGTC Wnk1  
Wnk1\_4 TGAGGGTC Wnk1  
Stk38l\_1 GTAGTCTG Stk38l  
Stk38l\_2 TGCTCGGA Stk38l  
Stk38l\_3 TGTCTGGT Stk38l  
Stk38l\_4 TTATGTTTC Stk38l  
Mark4\_1 AAGCGATA Mark4  
Mark4\_2 CAGACTGC Mark4  
Mark4\_3 GGTGGGT Mark4  
Mark4\_4 GTGATGG Mark4  
Itpkc\_1 ATCAGTGC Itpkc  
Itpkc\_2 CGGAGGT Mark4  
Itpkc\_3 GATAACCT Itpkc  
Itpkc\_4 TCTGGGGT Itpkc  
Hipk4\_1 CAGATTGA Hipk4  
Hipk4\_2 CTCAAGGA Hipk4  
Hipk4\_3 CTCGGCCA Hipk4  
Hipk4\_4 GGACACG Mark4  
Lrrk1\_1 AATCGAAG Lrrk1  
Lrrk1\_2 TAGTAGTT Lrrk1

Lrrk1\_3 TCAACTCC(Lrrk1  
Lrrk1\_4 TCTTTAAC(Lrrk1  
Smg1\_1 GACAGCGC(Smg1  
Smg1\_2 TCGGGGTC(Smg1  
Smg1\_3 TCTGTCTTT(Smg1  
Smg1\_4 TGGTCCAA(Smg1  
Fuk\_1 AGATACCC(Fuk  
Fuk\_2 AGCTGCCC(Fuk  
Fuk\_3 CGGCCCGC(Fuk  
Fuk\_4 GCCCTGCC(Fuk  
Atmin\_1 ACACTTGA(Atmin  
Atmin\_2 ATCAGGGC(Atmin  
Atmin\_3 CCTCTTGT(Atmin  
Atmin\_4 TAATTCCT(Atmin  
Cdk10\_1 ACAGGAAC(Cdk10  
Cdk10\_2 GACAAGGC(Cdk10  
Cdk10\_3 TATGCCAA(Cdk10  
Cdk10\_4 TCTCCGCC(Cdk10  
Sik2\_1 AATACCCA(Sik2  
Sik2\_2 CCAATTGG(Sik2  
Sik2\_3 TCATAGAG(Sik2  
Sik2\_4 TGGAACGT(Sik2  
Gk5\_1 AATCCAGG(Gk5  
Gk5\_2 GCGCCGTC(Gk5  
Gk5\_3 GCTGGCAT(Gk5  
Gk5\_4 GGGAGAT(Gk5  
Glyctk\_1 AGTGATTG(Glyctk  
Glyctk\_2 CTGTGCTC(Glyctk  
Glyctk\_3 GCGGGAA(Glyctk  
Glyctk\_4 GGTGTGAT(Glyctk  
Camkv\_1 CAACCCGC(Camkv  
Camkv\_2 CTCCTTGC(Camkv  
Camkv\_3 GGAGCGA(Camkv  
Camkv\_4 TTCTAGGA(Camkv  
Pdk3\_1 CCAGCTCT(Pdk3  
Pdk3\_2 CTTACTTA1(Pdk3  
Pdk3\_3 GTTGTTCC(Pdk3  
Pdk3\_4 TAAGCATG(Pdk3  
Cdk17\_1 CAAATTGG(Cdk17  
Cdk17\_2 CTGCATAG(Cdk17  
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Fn3krp\_1 CAGAGTTA(Fn3krp  
Fn3krp\_2 TCTGAAGA(Fn3krp  
Fn3krp\_3 TGGAGAG(Fn3krp  
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Rps6kl1\_1 AATTACCA(Rps6kl1

Rps6kl1\_2 CGGCTGAC Rps6kl1  
Rps6kl1\_3 GCCTGGTG Rps6kl1  
Rps6kl1\_4 GTAGTCAC Rps6kl1  
Mylk4\_1 AGGCATCA Mylk4  
Mylk4\_2 CCAACCGT Mylk4  
Mylk4\_3 GCAAATCT Mylk4  
Mylk4\_4 GCTAAAAT Mylk4  
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Cdc42bpg\_AGCATCAA Cdc42bpg  
Cdc42bpg\_AGTGAAGC Cdc42bpg  
Cdc42bpg\_GGACCCTG Cdc42bpg  
Pik3c2b\_1 AGACTGCC Pik3c2b  
Pik3c2b\_2 CCTCACAC Pik3c2b  
Pik3c2b\_3 GGAAGGC Pik3c2b  
Pik3c2b\_4 TGCAAAGT Pik3c2b  
Scyl3\_1 CTCGGTCC Scyl3  
Scyl3\_2 GGTGTTAC Scyl3  
Scyl3\_3 TGCAGGTT Scyl3  
Scyl3\_4 TTTAGGGA Scyl3  
Prkag3\_1 AAGAACAT Prkag3  
Prkag3\_2 CATGAAGT Prkag3  
Prkag3\_3 CCGGGATC Prkag3  
Prkag3\_4 GAAAGAAC Prkag3  
Pak7\_1 ATTGTGGG Pak7  
Pak7\_2 CAGTGAAT Pak7  
Pak7\_3 GGTACCCA Pak7  
Pak7\_4 TATTCCTAC Pak7  
Styk1\_1 GCCTCTGT Styk1  
Styk1\_2 TAGGATGT Styk1  
Styk1\_3 TCACCCTA Styk1  
Styk1\_4 TCCAATTC Styk1  
Plxna4\_1 ACATGATG Plxna4  
Plxna4\_2 CATTGGCT Plxna4  
Plxna4\_3 GAAGGAA Plxna4  
Plxna4\_4 GCCCACT Plxna4  
Pskh1\_1 ACCACCAC Pskh1  
Pskh1\_2 ATAAAGGC Pskh1  
Pskh1\_3 TAGAGACC Pskh1  
Pskh1\_4 TTTGACCG Pskh1  
Ankk1\_1 CCGGCCAC Ankk1  
Ankk1\_2 GCCTCCAG Ankk1  
Ankk1\_3 GGACAACA Ankk1  
Ankk1\_4 GTGAATGC Ankk1  
Peak1\_1 AGTGCAAC Peak1  
Peak1\_2 CCGCCGCC Peak1  
Peak1\_3 CGAGGTCA Peak1  
Peak1\_4 GTGTAAGC Peak1



Atr\_1 CTTCAGAT(Atr  
Atr\_2 CTTGTGAC(Atr  
Atr\_3 TCAGGTGA Atr  
Atr\_4 TTCAAAGC Atr  
Dclk3\_1 ACATCTGA Dclk3  
Dclk3\_2 GAAAGGA/ Dclk3  
Dclk3\_3 GGGATTCC Dclk3  
Dclk3\_4 GTCAGGAC Dclk3  
Nim1k\_1 CATAAACA Nim1k  
Nim1k\_2 TCTCCACG, Nim1k  
Nim1k\_3 TGGCACGA Nim1k  
Nim1k\_4 TTCACTCC( Nim1k  
Gucy2f\_1 AAGAACGC Gucy2f  
Gucy2f\_2 AGAACAAA Gucy2f  
Gucy2f\_3 TATGCATT( Gucy2f  
Gucy2f\_4 TCATCTCA( Gucy2f  
Pkn3\_1 CTGCTACG' Pkn3  
Pkn3\_2 GCAGCACC Pkn3  
Pkn3\_3 GCCACAGA Pkn3  
Pkn3\_4 TGGGCAA# Pkn3  
Irak4\_1 CAAGGTGC Irak4  
Irak4\_2 CTGTGTGA Irak4  
Irak4\_3 GTAGCTAT Irak4  
Irak4\_4 TGTAAGCA Irak4  
Adck5\_1 CACCGTGC Adck5  
Adck5\_2 CTGGTGCG Adck5  
Adck5\_3 GGGGGCC\ Adck5  
Adck5\_4 TCATCTCC/ Adck5  
Pkmyt1\_1 AAGATGGT Pkmyt1  
Pkmyt1\_2 CTCCATAT( Pkmyt1  
Pkmyt1\_3 CTGGACCA Pkmyt1  
Pkmyt1\_4 GTTTACGA Pkmyt1  
Stk32a\_1 ACGGCTTA Stk32a  
Stk32a\_2 GCTGGCAC Stk32a  
Stk32a\_3 GTGTGGAC Stk32a  
Stk32a\_4 TGGCTCGC Stk32a  
Stk36\_1 AGCTGGAT Stk36  
Stk36\_2 GGCCTTTA\ Stk36  
Stk36\_3 GGGTAGGC Stk36  
Stk36\_4 TTGGCGAG Stk36  
Pask\_1 CTGTCCTT/ Pask  
Pask\_2 GTACCGAA Pask  
Pask\_3 TACCACAT( Pask  
Pask\_4 TGCAGTGG Pask  
Acvr1c\_1 CCTGAGCA Acvr1c  
Acvr1c\_2 CGTAGGAA Acvr1c  
Acvr1c\_3 GACTAAGA Acvr1c

Acvr1c\_4 TGAGAGAT Acvr1c  
Aak1\_1 AATATCCT Acak1  
Aak1\_2 ACTGGGGC Aak1  
Aak1\_3 ATACCTGT Acak1  
Aak1\_4 GTTCACAG Aak1  
Ephb1\_1 CAGCACGT Ephb1  
Ephb1\_2 GATAGATG Ephb1  
Ephb1\_3 GTGTTGTA Ephb1  
Ephb1\_4 TCATCCAA Ephb1  
Pfkfb4\_1 CAACCAAT Pfkfb4  
Pfkfb4\_2 CCCC GGTC Pfkfb4  
Pfkfb4\_3 TCCCCCCC Pfkfb4  
Pfkfb4\_4 TGTCCCGG Pfkfb4  
Map3k15\_1 CCATTACA Map3k15  
Map3k15\_2 CTAGTGAA Map3k15  
Map3k15\_3 GTATGACC Map3k15  
Map3k15\_4 TCATACCT Map3k15  
Ip6k3\_1 CCTGGTTG Ip6k3  
Ip6k3\_2 CGTCATAC Ip6k3  
Ip6k3\_3 GAAGTGCC Ip6k3  
Ip6k3\_4 GGGAGCA Ip6k3  
Cdk15\_1 AGGATGCT Cdk15  
Cdk15\_2 CCTGGGGT Cdk15  
Cdk15\_3 TGTGAACA Cdk15  
Cdk15\_4 TTACCATA Cdk15  
Tbck\_1 ACTTATGA Tbck  
Tbck\_2 AGATATAG Tbck  
Tbck\_3 GAGACCAT Tbck  
Tbck\_4 TCTTAGAA Tbck  
Stkld1\_1 GAATTTCT Stkld1  
Stkld1\_2 GTTCATCA Stkld1  
Stkld1\_3 TGATTGCC Stkld1  
Stkld1\_4 TTAACAAG Stkld1  
Wnk3\_1 AACTGTCT Wnk3  
Wnk3\_2 AGACAACC Wnk3  
Wnk3\_3 CCAAACAA Wnk3  
Wnk3\_4 GATGTGCA Wnk3  
Rps6kc1\_1 ACACCATG Rps6kc1  
Rps6kc1\_2 ACTGTCCC Rps6kc1  
Rps6kc1\_3 CGTAGACA Rps6kc1  
Rps6kc1\_4 GCTGTTCGT Rps6kc1  
Dgki\_1 ACCTACGC Dgki  
Dgki\_2 GGTCTGGC Dgki  
Dgki\_3 GGTGGGCC Dgki  
Dgki\_4 TGTAACCC Dgki  
Adrbk2\_1 ATTCTGTC Adrbk2  
Adrbk2\_2 CAGCCGTG Adrbk2

Adrbk2\_3 CCACCCCT/ Adrbk2  
Adrbk2\_4 GCTGTCTC Adrbk2  
Pik3r5\_1 CCACAGGA Pik3r5  
Pik3r5\_2 CGAGAGGC Pik3r5  
Pik3r5\_3 GCTGAGCC Pik3r5  
Pik3r5\_4 TGTACTIONA( Pik3r5  
Itpkb\_1 ACTTCCGT( Itpkb  
Itpkb\_2 CAGGCAGT Itpkb  
Itpkb\_3 GAACGAG( Itpkb  
Itpkb\_4 GATCTGGA Itpkb  
Fastkd1\_1 ACGCTCTC( Fastkd1  
Fastkd1\_2 GCTGTATA Fastkd1  
Fastkd1\_3 TCCGCACC Fastkd1  
Fastkd1\_4 TGATGGAC Fastkd1  
Pkn1\_1 AAAGTCGC Pkn1  
Pkn1\_2 ATGATCCA Pkn1  
Pkn1\_3 CAGTAAGT Pkn1  
Pkn1\_4 GCTCAAGC Pkn1  
Ppip5k1\_1 AGAGCCG/ Ppip5k1  
Ppip5k1\_2 CGTGACTT Ppip5k1  
Ppip5k1\_3 GGATGATC Ppip5k1  
Ppip5k1\_4 GGTGTACC Ppip5k1  
Mast4\_1 AACACTCC Mast4  
Mast4\_2 ATGTGTCT( Mast4  
Mast4\_3 GGAGCTCC Mast4  
Mast4\_4 TAATTACG( Mast4  
Myo3b\_1 CCCACTGT( Myo3b  
Myo3b\_2 CTCTCTTA( Myo3b  
Myo3b\_3 TCAGTGGA Myo3b  
Myo3b\_4 TCATCCAC( Myo3b  
Taok3\_1 AGGAAGC/ Taok3  
Taok3\_2 GACAAATG Taok3  
Taok3\_3 GCTCTCGG Taok3  
Taok3\_4 TAATCTTA( Taok3  
Nek5\_1 AAATCTGT Nek5  
Nek5\_2 GTGGAACC Nek5  
Nek5\_3 TGCCCGAT Nek5  
Nek5\_4 TGGAATGC Nek5  
Mapk15\_1 CAAACGCC Mapk15  
Mapk15\_2 CCACCCCA( Mapk15  
Mapk15\_3 GGGCACGC( Mapk15  
Mapk15\_4 TACTGAAG Mapk15  
Ksr2\_1 CACCTGGC Ksr2  
Ksr2\_2 CCGGATCG Ksr2  
Ksr2\_3 CTCCTCGG Ksr2  
Ksr2\_4 GACCCCTG Ksr2  
N4bp2\_1 ACTTTGCA/ N4bp2

N4bp2\_2 ATCCTGAA N4bp2  
N4bp2\_3 CAGCACAC N4bp2  
N4bp2\_4 TTGGGTGA N4bp2  
Map3k9\_1 CATGAACT Map3k9  
Map3k9\_2 CTGCTTGT Map3k9  
Map3k9\_3 GGAGATGT Map3k9  
Map3k9\_4 GGGCCGTG Map3k9  
Morn2\_1 ACAACATG Morn2  
Morn2\_2 CCAACTGG Morn2  
Morn2\_3 GACTTACA Morn2  
Morn2\_4 TGTGTATG Morn2  
Fastkd5\_1 AAATGCCA Fastkd5  
Fastkd5\_2 CAAAATAC Fastkd5  
Fastkd5\_3 GGAAACAT Fastkd5  
Fastkd5\_4 TAAAAAAA Fastkd5  
Obscn\_1 AAAGGCA Obscn  
Obscn\_2 ATTGCCAT Obscn  
Obscn\_3 TATGCCGG Obscn  
Obscn\_4 TGTGTTCT Obscn  
Dgkh\_1 ATAAACGG Dgkh  
Dgkh\_2 CAACTCTG Dgkh  
Dgkh\_3 CTTTCGCA Dgkh  
Dgkh\_4 GTGCTATT Dgkh  
Cdkl4\_1 ACATCCTA Cdkl4  
Cdkl4\_2 GACGGCCC Cdkl4  
Cdkl4\_3 GGTGGCA Cdkl4  
Cdkl4\_4 TGATCATC Cdkl4  
Wee2\_1 CAATATCA Wee2  
Wee2\_2 CATATGTC Wee2  
Wee2\_3 GGTGTACC Wee2  
Wee2\_4 TGAGTAGT Wee2  
Sbk3\_1 CTTCAGGT Sbk3  
Sbk3\_2 CTTCCCGA Sbk3  
Sbk3\_3 GAGCCAAT Sbk3  
Sbk3\_4 TGAGCAAA Sbk3  
Sbk2\_1 AATGCCAT Sbk2  
Sbk2\_2 AGGTGATT Sbk2  
Sbk2\_3 GGTGAGTA Sbk2  
Sbk2\_4 GTTGGATG Sbk2  
Brsk1\_1 CCTCCTAC Brsk1  
Brsk1\_2 CTCTGGAC Brsk1  
Brsk1\_3 GCTGCTTC Brsk1  
Brsk1\_4 TGAGCAGA Brsk1  
Lmtk3\_1 ACTGCAAA Lmtk3  
Lmtk3\_2 AGTGTCCG Lmtk3  
Lmtk3\_3 GGATTGGA Lmtk3  
Lmtk3\_4 TGTGACAA Lmtk3

Cdk15\_1 AAGAACG Cdk15  
Cdk15\_2 ACATAGAA Cdk15  
Cdk15\_3 ACGTACAT Cdk15  
Cdk15\_4 TCGGAGAG Cdk15  
Map4k5\_1 CAACCATG Map4k5  
Map4k5\_2 CTGATCAG Map4k5  
Map4k5\_3 TCACTTCA Map4k5  
Map4k5\_4 TGCAGTAA Map4k5  
Tnni3k\_1 CCATAGAT Tnni3k  
Tnni3k\_2 GCTGTGAA Tnni3k  
Tnni3k\_3 GGGAGGG Tnni3k  
Tnni3k\_4 GTCACACA Tnni3k  
Kalrn\_1 ACAGAATA Kalrn  
Kalrn\_2 CTCCACCG Kalrn  
Kalrn\_3 GACAGAG Kalrn  
Kalrn\_4 TCCTTATT Kalrn  
Mast3\_1 CATATTCC Mast3  
Mast3\_2 CTCCTCAG Mast3  
Mast3\_3 CTGGTGTA Mast3  
Mast3\_4 CTTTATCC Mast3  
Gsk3a\_1 ACCACAGT Gsk3a  
Gsk3a\_2 GGGTCCAC Gsk3a  
Gsk3a\_3 TACCTTGA Gsk3a  
Gsk3a\_4 TCGGAGTA Gsk3a  
Tnik\_1 AGTGAGCC Tnik  
Tnik\_2 CAAACTTC Tnik  
Tnik\_3 CTCCATTCT Tnik  
Tnik\_4 TGAGACAC Tnik  
Nek10\_1 ACGCCAAA Nek10  
Nek10\_2 AGTGTGG Nek10  
Nek10\_3 TGATACCA Nek10  
Nek10\_4 TTGTAGGT Nek10  
NTC\_1 AAAAAAGTC NTC  
NTC\_2 AAAACGGC NTC  
NTC\_3 AAAACGTA NTC  
NTC\_4 AAAATTGC NTC  
NTC\_5 AAACCCCC NTC  
NTC\_6 AAACCTAG NTC  
NTC\_7 AAACGAGC NTC  
NTC\_8 AAATCAT NTC  
NTC\_9 AAATCCC NTC  
NTC\_10 AAAGACGT NTC  
NTC\_11 AACATGTT NTC  
NTC\_12 AACCAGCA NTC  
NTC\_13 AACCCGG NTC  
NTC\_14 AACCCGCC NTC  
NTC\_15 AACCGGCT NTC

NTC\_16 AACCGTAC NTC  
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NTC\_18 AACGCCCC NTC  
NTC\_19 AACGGCTG NTC  
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NTC\_23 AACGTCAC NTC  
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NTC\_25 AACTAACT NTC  
NTC\_26 AACTCCTC NTC  
NTC\_27 AACTCGCG NTC  
NTC\_28 AACTTATA NTC  
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NTC\_30 AAGCACAA NTC  
NTC\_31 AAGCAGCC NTC  
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NTC\_54 ACAACAAT NTC  
NTC\_55 ACAACACG NTC  
NTC\_56 ACAATTCG NTC  
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NTC\_68 ACCAGGAC NTC  
NTC\_69 ACCAGGCC NTC  
NTC\_70 ACCATACG NTC  
NTC\_71 ACCATAGT NTC  
NTC\_72 ACCATCCG NTC  
NTC\_73 ACCATGAT NTC  
NTC\_74 ACCCACGT NTC  
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NTC\_77 ACCCATCG NTC  
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NTC\_80 ACCGCACG NTC  
NTC\_81 ACCGCGCA NTC  
NTC\_82 ACCGGACT NTC  
NTC\_83 ACCGGATG NTC  
NTC\_84 ACCGGTCG NTC  
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NTC\_87 ACCGTCTC NTC  
NTC\_88 ACCGTCTG NTC  
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NTC\_90 ACCTCGTG NTC  
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NTC\_93 ACGACGTC NTC  
NTC\_94 ACGAGGAC NTC  
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NTC\_99 ACGCTCTC NTC  
NTC\_100 ACGCTGTT NTC