

Table S9. Oligonucleotides used in study

Name	Sequence
Barseq_P1	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTCCGATCTNNN NNGTCGACCTGCAGCGTACG
Barseq_P1_2N	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTCCGATCTNNG TCGACCTGCAGCGTACG
Barseq_P1_3N	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTCCGATCTNNN GTCGACCTGCAGCGTACG
Barseq_P1_4N	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTCCGATCTNNN NGTCGACCTGCAGCGTACG
gfeba270	tccgcgcgaagactTATCCCGTTCCGCCAGTTTGCGTGTGTCGTCAGACCGTCTACGCCGACCTCG TTCAACAGGTCcAGGGCGGCACGGATCACTGTATTCCGGCTGCAACTTTGTCATGCTTGACA CTTTATCACTGATAAACATAATATGTCCACCAACTTATCAGTGATAAAGAATCCGCGCGTTC AATCGGACCAGCGGAGGCTaGTCCGGAGGCCACATATGATAACTTCTGCTCTTcatcaagtcttc catgaac
gfeba271	TCCGCGCGAAGACTTTTATCGTGAGCGCAACGCAATTAATGTGAGTTAGCTCACTCATTAGG CACCCCAGGCTTTACACTTTTATGCTTCCGGCTCGTATGTTGTGTGGAATTGTGAGCGGATA ACAATTTACACAGGAAACACATATGGAAAAAaggaAAGTCTTCCATGAAC
gfeba290	TCCGCGCGAAGACTTTTATCgtatctggaagaagcaatgaaagctgctgtaagtctccgaatcaggtattgtcctgacag gtgtattccatccgtaaacgcggatacttgcagttgatctgactcaggaataaattataaattaaggtagaagattgtaggataag ctaataagaaatagaaaaaggatgccgtcacacaactgtcggcattcttttgtttattagttgaaaatagtgaaaaagttgcctaaat atgtatgttaacaaattattgtcgaacttgcactcctcaatctgttttaaATGATAACTTCTGCTCTTcatcaagtcttccatg aac
gfeba291	TCCGCGCGAAGACTTTTATCgttcctgtgaattagctgatttagtactttcgggggtgctcattctaccaaagtgcaagttgt gggtagggtcacttgaataataatgcaccgcacagtgatacatgcttacctcctcaagtagccccaggtaagtctatttaggtgaa caaatctcagttcaggtagaaaaacttcgacctgctcagagttctattaggaaatctgacaccacttgattaataaacctacccccga attgggggaggggtatttttctgtgaacgtagtttgggcatatgacctgcgtttataagaaatgtaaacgtgatcagatcgatata aaagaaacagttgtactcaggttgaagcatttctcggattcgcctggcaagaatcctcaattgtcgttacagttttctcaacgacagg ctgctaagctgctagttcgggtgcctagtgagtgccgttactgaaatgaaaagtaaatccatgctgctgatcagcaattgggtgtttcc atagcaatccaaagtttgccttctgatacctattcaaggagacctcgcctctATGATAACTTCTGCTCTTcatcaagtctt ccatgaac
gfeba294	TCCGCGCGAAGACTTTTATCTGTCCGCACGCTCGGTTAGAATCGTTAGCGTTCGAAAGGAC CCCGTTCCGGTGCCCGTCCCAAACCTCAATTTAGGGACTGTCCCTAAATTGAGGTTTGGG ACGGGCCGGGTTGCGTACTCTTAGCACATCAAATGGGAGATTACAGCACATGATAACTTC TGCTCTTcatcaagtcttccatgaac
gfeba295	TCCGCGCGAAGACTTTTATCGCTGACAGGGCCGTCCCATCCCTTGCCGCCGCCTTGTG CCGGTGGTACGGGGGTGGGGACGTCCGCTTTTTCCCGGCCCGCTTCCCGGGTTCGCTTT CCCGGAGGACATCCGCGTTCGCCGGGCATCCGGTGCCGATAGGATGTCGCGATGATAAC TTCGTCTTcatcaagtcttccatgaac
gfeba296	TCCGCGCGAAGACTTTTATCgtatctggaagaagcaatgaaagctgctgtaagtctccgaatcaggtattgtcctgacag gtgtattccatccgtaaacgcggatacttgcagttgatctgactcaggaataaattataaattaaggtagaagattgtaggataag ctaataagaaatagaaaaaggatgccgtcacacaactgtcggcattcttttgtttattagttgaaaatagtgaaaaagttgcctaaat atgtatgttaacaaattattgtcgaacttgcactcctcaatctgttttaaATGGAAAAAaggaAAGTCTTCCATGAAC
gfeba297	TCCGCGCGAAGACTTTTATCgttcctgtgaattagctgatttagtactttcgggggtgctcattctaccaaagtgcaagttgt gggtagggtcacttgaataataatgcaccgcacagtgatacatgcttacctcctcaagtagccccaggtaagtctatttaggtgaa caaatctcagttcaggtagaaaaacttcgacctgctcagagttctattaggaaatctgacaccacttgattaataaacctacccccga attgggggaggggtatttttctgtgaacgtagtttgggcatatgacctgcgtttataagaaatgtaaacgtgatcagatcgatata aaagaaacagttgtactcaggttgaagcatttctcggattcgcctggcaagaatcctcaattgtcgttacagttttctcaacgacagg ctgctaagctgctagttcgggtgcctagtgagtgccgttactgaaatgaaaagtaaatccatgctgctgatcagcaattgggtgtttcc atagcaatccaaagtttgccttctgatacctattcaaggagacctcgcctctATGGAAAAAaggaAAGTCTTCCAT GAAC
gfeba300	TCCGCGCGAAGACTTTTATCTGTCCGCACGCTCGGTTAGAATCGTTAGCGTTCGAAAGGAC CCCGTTCCGGTGCCCGTCCCAAACCTCAATTTAGGGACTGTCCCTAAATTGAGGTTTGGG ACGGGCCGGGTTGCGTACTCTTAGCACATCAAATGGGAGATTACAGCACATGAAAAAAAa ggaAAGTCTTCCATGAAC
gfeba301	TCCGCGCGAAGACTTTTATCGCTGACAGGGCCGTCCCATCCCTTGCCGCCGCCTTGTG CCGGTGGTACGGGGGTGGGGACGTCCGCTTTTTCCCGGCCCGCTTCCCGGGTTCGCTTT CCCGGAGGACATCCGCGTTCGCCGGGCATCCGGTGCCGATAGGATGTCGCGATGAAAAA AAaggaAAGTCTTCCATGAAC

gfeba431	TCCGCGCGAAGACTTTATCACGTTTGTGGAATCAGTAATGGCTCCAGAATTTGTAAACGAG TGGTTAGCAAAAAATAATATCAATATACCATATTGATAATAAAGCTACTTTTCATTAGAAAAGT GGCTTTTTTATTTTTATATCTTTGGTGAATTACAGGATAAAAAATGATAACTTCTGCTCTTc atcaagcttccatgaac
gfeba434	TCCGCGCGAAGACTTTATCTTAAACAGCAAATAGCGGGCATTCTGCTGAAAAGTGTTATTTT AGACATCAAGTAAAAAACAACCTAAGCCGACAAGTTTTCGCTCCCTACTCCACGCCACTTGCGG TTAACAAGACCGTTGTACACAAGGCTGAAAAAAGCTCACGATAACGAATGGAAAAAaggaA AGTCTTCCATGAAC
gfeba435	TCCGCGCGAAGACTTTATCTTCCGGATTTTCATGGGAATATATCTTTTGGTTCCCGAACATC TGAATGGCATTGATTCCCATTAAAGTCAAACCTTTCGGGGTTTTTAAAACCCCAAAGTTTTTCC AAGTCTTACATCTTGTGTCTTATGTCTTAAAGTCAAATAAAAAATATGATAACTTCTGCTCTT catcaagcttccatgaac
gfeba436	TCCGCGCGAAGACTTTATCAGTAGCGGCACACCACCTTTTGCCGGCGGCTCTACAGCCGG TCTGCACGAAAAGGGGGCGCAGGCAAGAAAAGAAACCGGGCCTGGTTTGAACGCTGGTT TTACGGTGGCACTTTCGCTATCTTTGGGTATCATCTTAAACCATAACAAGCAATGATAACTTCT GCTCTTcatcaagcttccatgaac
gfeba437	TCCGCGCGAAGACTTTATCATAATGCATCTCGGGCAAACCATATTTTTGATTTGAAGCTCTT CCATCTATCTAATTTACTGAAAGATTATGAATCTTAGGATATCCTAAGCAGAATCATCAGAA AATTGAGTAATAAACTCTATTTTGGTATCGTAAAATAAACCCATCATGGAAAAAaggaAAGT CTCCATGAAC
gfeba443	TCCGCGCGAAGACTTGCTGAATTGGTTAATTGGTTGTAACACTGGCAGAGCATTACGCCCT GCAGGTAATACGACTCACTATAGGGGATAAGAGACGGAAGTTATGGAGCATAGTAACATG TCGTCTCTCAGCGGCCGGCCggttgAGATGTGTATAAGAGACAGTGCAGCGCTTGGTTTCAT CAGCCATCCGCTTGCCCTCATCTGTACGCCGGCGGTAGCCGGCCAGCCTCGCAGAGCA GGATTCCCCTTGAGCACCGCCAGGTGCGAATAAGGGACAGTGAAGAAGGAACACCCGCT CGCGGGTGGCCTACTTCACCTATCCTGCCCGGCTGACGCCGTTGGATACACCAAGGAA AGTCTACACGAACCCTTTGGCAAAATCCTGTATATCGTGCGAAAAAGGATGGATATACCGA AAAATCGCTATAATGACCCCGAAGCAGGGTTATGCAGCGGAAAAGCGCTTCCCTGCTG TTTTTGTGGCGGCCATCGATCCGCGGGAATTCCTAGAATGATTCCTCCGCGAGCATGG CTTCCGGCCAGTGCCTCGAGCAGCGCCCGCTTGTTCCTGAAGTGCCAGTAAAGCGCCGGC TGCaatgtcatgataataatg
gfeba444	TCCGCGCGAAGACTTGCTGGCGGGACTCTGGGGTTTCGCGACACTGGCAGAGCATTACGC CCTGCAGGTAATACGACTCACTATAGGGGATAAGAGACGGAAGTTATGGAGCATAGTAAC ATGTCTCTCTCAGCGGCCGGCCAGACCGGGGACTTATCAGCCAACCTGTTATGTGTTGG GTAACGCCAGGGTTTTCCAGTCACGACGTTGTAAAACGACGGCCAGTGAATTAATCTTG CTTAtCGGCCAGCCTCGCAGAGCAGGATTCCCGTTGAGCACCGCCAGTGCGAATAAGGG ACAGTGAAGAAGGAACACCCGCTCGCGGGTGGCCCTACTTCACCTATCCTGCCCGGCTG ACGCCGTTGGATACACCAAGGAAAGTCTACACGAACCCTTTGGCAAAATCCTGTATATCGT GCGAAAAAGGATGGATATACCGAAAAAATCGCTATAATgaccccgagcagggtatgcagcggaaaag aatgtcatgataataatg
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gHL11	TCCGCGCGAAGACTTTATCgaagggcgagaatcatagcgcgagccgacgctggaagggggcgctgtacttt tctcgcgaaacgctgccgacaggagcgtagactgcccgccacgacttcccctctgcaacgaaccgacgatgacacgatggat cgccccgATGATAAATTCTGCTCTTcatcAAGTCTTCCATGAACCT
gHL14	TCCGCGCGAAGACTTTATCcatgacttgcgcacaggggaagggcgccaccgctccaacgggttcgpcgaggtcctg atgaaaacatgtctggcgatcaggagggcgccatcatggccggccgatcgcgccggcgctccacagaccggccaa ggactcaaATGGAAAAAaggaAAGTCTTCCATGAACCT
gHL16	TCCGCGCGAAGACTTTATCtgcgaccgcactcagctgacgaggagccccgatttcagacgaattagacgaattag acggtgttttcccgctcgcctgaaaccgcccacgcccgttcgcgaatgaggatgacgttcgcttcccccgctaaagccatc ccATGGAAAAAaggaAAGTCTTCCATGAACCT
gHL18	TCCGCGCGAAGACTTTATCataacggttcagctcaaccccggttcgggctgagcctgctggacctggcggttcgacagggc tcagggcgcaacggggtttgctgtaaggagcaaggagcATGGAAAAAaggaAAGTCTTCCATGAACCT
gHL2	TCCGCGCGAAGACTTTTCAGcggccgattagccacccaggtttacattatgcttccggctcgtataatgtgtggatt ttgagttaggatccgtcgagatttcaggagctaaggaagctaTGATAAGTCTTCCATGAAC
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gHL24	TCCGCGCGAAGACTTTATCgccacggccacagcaatcacaacctggacatcaagacaccctcttctgctcagtgatcagtacgactgaagaattgtaccataacagaccgcagatgagcaaaccttttcgtaagtaggtcaagacgATGATAACTTCTGCTCTTcatcAAGTCTTCCATGAACCT
gHL26	TCCGCGCGAAGACTTTATCgtaacctgactgtaaaaatgcagggcgaataaggtttcctttcactgcaaggtaaatatttatattaacacacacaataattttaggtctcttttggacatgctgtttttaaataaactttacactcgtaaagcattttcATGATAACTTCTGCTCTTcatcAAGTCTTCCATGAACCT
gHL27	TCCGCGCGAAGACTTTATCttatattcatttgaataactatcctgttttagtgcgcaatttaataaaaaaattgatgtcgcgaattacacagccatataataataatattttcacttttaaaatgtgtttctctcactattcgtatatttgcaccggatATGATAACTTCTGCTCTTcatcAAGTCTTCCATGAACCT
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gHL29	TCCGCGCGAAGACTTTATCcaccctgctgatctcagggcgcggtggacagcatcctcaaaatggatagacttataaattatcccaggagacaacgattaccacagggcagATGGAAAAAaggaAAGTCTTCCATGAACCT
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gHL30	TCCGCGCGAAGACTTTATCttgagtaaaaagtaattaccatataatcttgaaaaaagctgctgatacaggtagcttttttctttttagtatttagtataagcaaccgctataagatgatatactttattctttatattgtacaaactaataggaacgttATGGAAAAAaggaAAGTCTTCCATGAACCT
gHL31	TCCGCGCGAAGACTTTATCacagtaaagagctatccccgaagagggcgaactatcttgaagaacggttgcctctttcggggattatctgtatataataaggtataacataaacATGGAAAAAaggaAAGTCTTCCATGAACCT
gHL32	TCCGCGCGAAGACTTTATCcataggttcccaacgagggcgttaaggacttttcaagaactaatttactattatattgaatagaggtcgaaggaaatgtcggcctcttttgggtgtgctgtaaatatgcctatcttgcacgaaatattgcaatATGGAAAAAaggaAAGTCTTCCATGAACCT
gHL4	TCCGCGCGAAGACTTTTCAGcgggagctgcatgtgcagaggtttcaccgtcatccgaaacgcgcgacacgaaaggcctcgtgatacgcctattttataggttaatgtcatgataataatggttcttagacgtcaggtggcactttcggggaaatgtgcgcggaaccctattgttttctaaatacattcaaatatgtatccgctcatgagacaataaccctgataaatgtcctaataatattgaaaaggaaTGATAAGTCTTCCATGAAC
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gHL6	TCCGCGCGAAGACTTTATCcatgactgcgcacagggagggccaccgctccaacgggttgcgcaggtcctgatgaaaaacatgtgtcgggatcagggagggggccatcatgcccggccggatcgcgcgcccggcgtccacagaccggccaaaggactcaaATGATAACTTCTGCTCTTcatcAAGTCTTCCATGAACCT
gHL7	TCCGCGCGAAGACTTTATCggtcacttcaacgcatgatacggtaaggttcttccccagccatatttcttggctgctgcgctggagcgaatggcgtcatcggtcgcgacggcactgcccctggcgtccgcagcagcttgcagaggttcaaggccatcaacATGATAACTTCTGCTCTTcatcAAGTCTTCCATGAACCT
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gJW1	TCCGCGCGAAGACTTTTCAGCTGACCTCCTGCCAGCAATTGACATCAGGAAAATTTTTCTGTAGATTTAACGTATCCAGGATACATAGATTACCACAACCTCCGAGCCCTTCCACCagctgtcaccggatgtccttccggctgatgagtcctgaggaacagcagcctctcaaaatgttttaaGCACTACAGCAACACATAAGGGGTATTGATAAGTCTTCCATGAAC
gJW13	TCCGCGCGAAGACTTTATCCGCCCGGATAGCCGCAGTTTGCGACTTTTGCGGCACCTTTTGGCGCGTGCGGAGCCGGTCCCTATAATACGGCCGCAATTGTGCCCTCCGGTACATTCGTACGCCGGGCGCAACCCCTGCATGGCGCCGTCGGTCAGACCGCCATCGCCATGGAAAAAAGGAAAGTCTTCCATGAAC
gJW15	TCCGCGCGAAGACTTTATCTTTGTGGCCAAGCAAGGATTCGCCCCGCAAGTTGTCAGTTAACTCGGCGAATCGCGCTATTATACGCGGCACTTTTCTTGGCCGAGCAAGGCCTGCCAAGACCCTGCTCCCTGTGACTGCGACCAACACATTGCAGCGTACGCACGCATGATAACTTCTGCTCTTTCATCAAGTCTTCCATGAAC
gJW16	TCCGCGCGAAGACTTTATCTTTGTGGCCAAGCAAGGATTCGCCCCGCAAGTTGTCAGTTAACTCGGCGAATCGCGCTATTATACGCGGCACTTTTCTTGGCCGAGCAAGGCCTGCCAAGACCCTGCTCCCTGTGACTGCGACCAACACATTGCAGCGTACGCACGCATGAAAAAAAAGGAAAGTCTTCCATGAAC

gJW18	TCCGCGCGAAGACTTTATCCTATACGGGGTGTAACCCCTTCGTCTAGAATCCGCGTAGCTTA AACGACCCCTTCACAGGCTGGGCTGGACAAGGCAGGGCTTCGCGCAAGGAAACGTCG TTGGCTCTGGCCGAATCCCCGCTACATGCCGCCTGTGGTTGCAAGACCGATGATAACTT CTGCTCTTCATCAAGTCTCCATGAAC
gJW20	TCCGCGCGAAGACTTTTCAGGCTCGTTTCATGATGGAGCAATTGAAGAAGCCTTCAATCATT TCGGGTAAAAGTGTATAATATCAATACGCATAATCTTTATAATTTTCGCAAAAGTACAAAT ATTCAAAGATAAACCTGTATTTTGCCTTAAACAATCGAAGAATGATAAGTCTCCATGAAC
gJW23	TCCGCGCGAAGACTTTATCATTGATGAATTTTTAATTGGTGATTCCCTTAAGATAGGGAAAGC CTGATTTGTAAACGACTGAATATTTTTTCATTATAAAATCATTGTTTTGTGATTTGTGTTGG TATTTTTATTATTTAGTAACCTACAAATTTACCTAATCGTTTATGATAACTTCTGCTCTTCA TCAAGTCTTCATGAAC
gJW24	TCCGCGCGAAGACTTTATCTAACGTTTTCTTTTCAGCTAGGGGTGTCGTAAAAGAAGGGCTT TTTGTACGAGAACATAATATCTAATGATAAGTCAGGTAATGTAGGTGGAGAATTGAATTAG TTTTTATATTTGATTTTGAATGAACCTTTCGCAAAACCCATTACCAATGATAACTTCTGCTCT TCATCAAGTCTTCATGAAC
gJW26	TCCGCGCGAAGACTTTATCGGGATCGGCACCATTGTTTCAGGGGTGTTCCGGCTTCTGTC CGGCCTGTTTACCTGGCTGTATGTGGAGTTTGTGGACACAGAGTACATGGGCCGCGTAAT GGAGCAGCAGCGCGAGGAGATGATCCGCCAGGGCCTGACCGACGAGCAGATGATAACTT CTGCTCTTCATCAAGTCTTCATGAAC
gJW4	TCCGCGCGAAGACTTTTCAGaatgatattgtgtgcaaaaatataacttttataaaaaacagcaagtaaatgagcagaga aatcgagtggtgataacttttgaggatttttggttataacgcgggaggtagtaattttatgcttcaaatactactatcaTGATA AGTCTTCATGAAC
gJW59	TCCGCGCGAAGACTTTATCATTGATGAATTTTTAATTGGTGATTCCCTTAAGATAGGGAAAGC CTGATTTGTAAACGACTGAATATTTTTTCATTATAAAATCATTGTTTTGTGATTTGTGTTGG TATTTTTATTATTTAGTAACCTACAAATTTACCTAATCGTTTATGGAAAAAAGGAAAGTC TCCATGAAC
gJW61	TCCGCGCGAAGACTTTATCTAACGTTTTCTTTTCAGCTAGGGGTGTCGTAAAAGAAGGGCTT TTTGTACGAGAACATAATATCTAATGATAAGTCAGGTAATGTAGGTGGAGAATTGAATTAG TTTTTATATTTGATTTTGAATGAACCTTTCGCAAAACCCATTACCAATGGAAAAAAGGAAAG TCTTCATGAAC
gJW62	TCCGCGCGAAGACTTTTCAGTAACGTTTTCTTTTCAGCTAGGGGTGTCGTAAAAGAAGGGCTT TTTGTACGAGAACATAATATCTAATGATAAGTCAGGTAATGTAGGTGGAGAATTGAATTAG TTTTTATATTTGATTTTGAATGAACCTTTCGCAAAACCCATTACTGATAAGTCTTCATGAAC
gJW65	TCCGCGCGAAGACTTTATCGGGATCGGCACCATTGTTTCAGGGGTGTTCCGGCTTCTGTC CGGCCTGTTTACCTGGCTGTATGTGGAGTTTGTGGACACAGAGTACATGGGCCGCGTAAT GGAGCAGCAGCGCGAGGAGATGATCCGCCAGGGCCTGACCGACGAGCAGATGGAAAAA AAGGAAAGTCTTCATGAAC
gJW66	TCCGCGCGAAGACTTTTCAGGGATCGGCACCATTGTTTCAGGGGTGTTCCGGCTTCTGTC CGGCCTGTTTACCTGGCTGTATGTGGAGTTTGTGGACACAGAGTACATGGGCCGCGTAAT GGAGCAGCAGCGCGAGGAGATGATCCGCCAGGGCCTGACCGACGAGCTGATAAGTCTTC CATGAAC
gJW67	TCCGCGCGAAGACTTTATCTCCTCAATAACGGAACGTATGGCTTCAACGGTATCTGATTCT TTCAGCAGCTCACGGTTCTCCAGGCCTGCTCTATTATTTGTCTTAGCTCCATCTTCAAAAA TATGCTTTTTACATAATATTGCGTAAAAGTAAGTATTTTTGGTGGATGGAAAAAAGGAAAG TCTTCATGAAC
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ofeba107	GTTTCATGGAAGACTTCTGAaagaattcccatgtcagccg
ofeba108	TCCGCGCGAAGACTTTGATGAGCCATATTC AACGGGAAAC
ofeba109	GTTTCATGGAAGACTTCAGCTTAGAAAAACTCATCGAGCATCAAATGAAAC
ofeba114	CTTTGAGTTATCGCCACCAGG
ofeba115	GGAAGCGGAACACGTAGAAAG
ofeba120	CCGGGCAGGATAGGTGAAGTAG
ofeba121	CATGCGTAACCGGCTAGTTG
ofeba122	ATTTGGATATGCGGAAGCTCTG
ofeba123	TCTTTGTTAGACCGGATCTGC
ofeba124	GTGGACAACAAGCCAGGGATG
ofeba125	GCGACACTGGCAGAGCATTAC
ofeba127	AATCCCATGTCAGCCGTTAAG

ofeba129	GCTGCAAACACCGCTCAGAATC
ofeba134	AAGTCTTCCATGAACctacgggtatccacagaatcagg
ofeba137	AAGTCTTCGCGCGGAaaacgcccggcggaacc
ofeba142	TCCGCGGAAGACTTGCTGAATTGGTTAATTGGTTGTAACACTGGC
ofeba143	cattattatcatgacattgcagccggcgcttactggc
ofeba144	gccagtaaagcggcgctgcaatgtcatgataataatg
ofeba145	GTTTCATGGAAGACTTGATAtcagtgaacgaaaactcagc
ofeba146	TCCGCGGAAGACTTGCTGGCGGGACTCTGGGGTTTCGCG
ofeba149	GTTTCATGGAAGACTTGATAtcagtgaacgaaaactcagc
ofeba235	GCGGGGCGTAATTTGATATCGAGCTCG
ofeba236	CGGGTTTCGCCACCTCTGACTTGAGC
ofeba243	CTTTAAAgaggacGGCAATATCCTGGGC
ofeba244	TCAATGCCTTTCAGCTCAATG
ofeba247	AAGTCTTCCATGAACgaaagtgaacgtgatttcatgcg
ofeba248	AAGTCTTCGCGCGGAacgggtatccacagaatcagg
ofeba249	cattattatcatgacattctttccgctgcataacc
ofeba250	ggttatgcagcggaaaagAATGTCATGATAATAATG
ofeba253	GTATGCGGCGACCGAGTTGC
ofeba254	GTATCCGCTCATGAGACAATAAC
ofeba256	TCCGCGGAAGACTTCATCGTGC GGCCGACTGGGCTAAATC
ofeba257	TCCGCGGAAGACTT AGGA ATTCGTGTTTTGATAAAAATACTGTTTTTC
ofeba273	TATTTcgtctgGCTCAGGCGCAATCACGA
ofeba274	CGCGATCGCTGTAAAAGGAC
ofeba275	GAACcgtcccCGAAGCGTGGAAGACT
ofeba276	ACCGGTCGCTGTCCACTCAG
ofeba282	GATGTCCACGAGGTCTCTNNNNNNNNNNNNNNNNNNNNCGTACGCTGCAGGTTCGAC
ofeba285	GGACGGCCAGCGTCTCTGATAGATGTCCACGAGGTCTCT
ofeba286	TGGTGGGTTGCGTCTCTGCTGGTTCGACCTGCAGCGTACG
ofeba287	TCCGCGGAAGACTTTGATgaacaaagtaaataaaaagatagtcaaaat
ofeba288	GTTTCATGGAAGACTTCAGCttagccggtaaatattttataactattaaatag
ofeba302	TCCGCGGAAGACTTTATCGATCCGCCGGAATTCGAGC
ofeba303	GTTTCATGGAAGACTTGATGAAGAGCAGAAGTTATCATACTCTATCTATTAATACAAT
ofeba304	GTTTCATGGAAGACTTGATGAAGAGCAGAAGTTATCATGTTTTTTGTAAATTAGATGCT
ofeba305	GTTTCATGGAAGACTTGATGAAGAGCAGAAGTTATCATTTTTTCTGCCTCCTCGATATT
ofeba307	GTTTCATGGAAGACTTGATGAAGAGCAGAAGTTATCATCGGGTCAAGAGCCTGGAAAC
ofeba309	GTTTCATGGAAGACTTGATGAAGAGCAGAAGTTATCATAATCTGTCTCCTCGGTTAAA
ofeba310	GTTTCATGGAAGACTTGATGAAGAGCAGAAGTTATCATAAAAACCTCTAAAATAAATT
ofeba311	GTTTCATGGAAGACTTGATGAAGAGCAGAAGTTATCATTCGGCTCCATCCTGTGCGCT
ofeba313	GTTTCATGGAAGACTTtccTTTTTTCCATGTTTTTGTAATTAGATGCT
ofeba315	GTTTCATGGAAGACTTtccTTTTTTCCATGTCATCTCCTGGGGTGTGCT
ofeba318	GTTTCATGGAAGACTTtccTTTTTTCCATAATCTGTCTCCTCGGTTAAA
ofeba319	GTTTCATGGAAGACTTtccTTTTTTCCATAAAAACCTCTAAAATAAATT
ofeba429	TCCGCGGAAGACTTTCAGCGTTATCCCCTGATTCTGTGG
ofeba430	GTTTCATGGAAGACTTCAGCttactattaaataatttagctattgaaagagataag
ofeba445	cgActctgaccgagaccaataaaaaacgc
ofeba446	tataaacgcagaaaggccaccgc
oHL551	TACCGAGCTCGAATTCATCGATGATGGTTG
oHL552	CGATCAGAAGTCTTCCATGAACCTACGGTTATC

oHL553	ATCTGGTCCGCGCACATTTCC
oHL554	AATTCITTCAGAAGTCTTCCATGAACCTACG
oHL557	gtctgacagttaccaatgcttaacagtg
oHL558	caagtttactcatatatactttagattgattaaaac
oHL561	cactgattaagcattggaactgtcagacCCGGCCACGATGCGTCCGGCGTAG
oHL562	ctaaagtatatatgagtaaacttgCCCATGTCAGCCGTTAAGTGTTCTGTG
oHL563	TCCGCGCGAAGACTTTGATGATTGAACAAGATGGATTGCACGCAG
oHL564	GTTTCATGGAAGACTTCAGCTCAGAAGAACTCGTCAAGAAGGC
oHL614	CACGATATACAGGATTTTGCCAAAAG
oJW80	GTTTCATGGAAGACTTCAGCTTACTTATTAATAATTTATA
oJW82	GTTTCATGGAAGACTTCAGCTTACTTATTAATAATTTATA
oJW90	GTTTCATGGAAGACTTCAGCTTATTTCTCCCGTTAAATAA
oJW93	TCCGCGCGAAGACTTTGatgaacgagaaaaatataaaa
oJW94	TCCGCGCGAAGACTTTGATGAACGAGAAAAATATAAAA
oJW95	TCCGCGCGAAGACTTTGatgaacaaaaatataaaatat
oJW97	TCCGCGCGAAGACTTTGATGAACAAAAATATAAAATATTCTC
oJW98	GTTTCATGGAAGACTTCAGCTTATTTCTCCCGTTAAATAATAG
oLAM106	GATCCGCGCGAATTCGAGCTCAAGAAATAAGATAGTCTGTGCGAAAGACGTTTGAATATAGA ATCCTCTTATCGTATTCGATAAGGGGATTTTTTTTTGTACTTTATCCCTGTACTTTCATTACT TTGTTATATCTTTGTGGCATAATGTATTGTATTAA
oLAM107	AGCAGAAGTTATCATACTCTATCTATTAATACAATACATTATGCCACAAAGATATAACAAAGT AATGAAAGTACAGGGATAAAGTACAAAAAAATCCCCTTATCGGAATACGATAAGAGGATT CTATATTCAAACGCTTTTCGACAGACTATCT
oLAM152	GATCCGCGCGAATTCGAGCCGTCGATCACCATCAACTTAGAACAAACACCTCCTTGAGGC GTATAGGTTATACGTCGTGTTTCCATTTTCTTTTTCTCTCCTTTTTATAAACGAGTCGCAAAG GTATAAATAAAATTAACACATTTGTAGCATCTAAT
oLAM153	AGCAGAAGTTATCATGTTTTTGTAAATTAGATGCTACAAATGTAGTTAATTTTATTTATACCT TTGCGACTCGTTTATAAAAAGGAGAGAAAAAGAAAATGGAAACACGACGTATAACCTATAC GCCTCAAGGAGGTGTTTGTCTAAGTTGATG
oLAM158	GATCCGCGCGAATTCGAGCCGCCATAATAACCTCCTGAAAAATAAGATACTTTCAGTATA GAGCATTATTTGCAATATAGAAAGCATTCTCTATTTCTATTTGAAGAAAATGCGGGATATA ATAAAAAACAGAGACAAATCAGGAAGCAATATCGAGG
oLAM159	AGCAGAAGTTATCATTTTTCTGCCTCCTCGATATTGCTTCTGATTTGTCTCTGTTTTTATTA TATCCCGCATTTTCTTCAATAGAAATAGAGAAAATGCTTTCTATATTGCAATAATGCTCTAT ACTGAAAGTATCTTATTTTTCAGGAGGTT
oLAM160	GATCCGCGCGAATTCGAGCATGAAAAAGAAGAGTGGTTCGCTCTTGGGTGAATGATACTGG TTGTCGCGCCAGTGACCCCCCATATCAAATGCCTGTACCTGGGCACCCCTATACATACAC AACTCGATCACCCCAAGGTGACCAGGCAAGCACACCCC
oLAM176	GATCCGCGCGAATTCGAGCATCACACGTTCTTGTCTTTCCCCGAGTTTTGCCATTGAGA TATCGGTTTTGCCGGGGTCTGGCAACCCGTATAAGCGACCCGGCTTTGAACCCGTCCCCA CCCCATTTCTCGGCGCGAAAACGCCCCGTTTCCAGGC
oLAM177	AGCAGAAGTTATCATCGGGTCAAGAGCCTGGAAACGGGGCGTTTTCCGCGCCGAGAAAT GGGGTGGGGACGGGTTCAAAGCCGGGTCGCTTATACGGGTTGCCAGACCCCGGGCAAA CCGATATCTCAATGGCAAAACTCGGGGGAAAGACAAGG
oLAM262	GATCCGCGCGAATTCGAGCCTTTATAATATATCATTTGTAACATAAAAAATATAAAATAT ATATCGGATATGTTTACAAAATAAATTTTTGAAAATATATATTTTAAATAATCGGATAAATGA TATAATTTATAAAAAGAATTAATTTAACCGAG
oLAM263	AGCAGAAGTTATCATAATCTGTCTCCTCGGTTAAATTAATTTCTTTTTATAAATATATCATTTA TCCGATTATATAAATATATATTTTCAAATAATTTTGTAAACATATCCGATATATATTTT ATATTTTTATTTAGTTACAAATGATA
oLAM270	GATCCGCGCGAATTCGAGCGGTTTCGATTCAAAAAAGGTTCTCGTATATTCAATTTTTAAG GTTAAACCCGAAAAGCCAGAAAAAATATAAAACGTTTTCTCGTTTTTGAATTTCTCGGA TCACAGTCTAAGAAAATATAGAAATCAATTTATTTT
oLAM271	AGCAGAAGTTATCATAAAACTCCTAAAATAAATGATTTCTATATTTTCTTAGACTGTGATC CGAGGAAATTCAAAACGAGAAAACGTTTTATAGTTTTTCTGGCTTTTCCGGGTTTAACT TAAAAATTGAATATACGAGGAACCTTTTTT

oLAM278	GATCCGCCGGAATTCGAGCAAACATCGGGCGGACATGCGTCCTACTTTCTGCCGGGCAG AGAAGAATGAAGCGAACGGCGGCCCTCGCGAAAAGCAATGCGGGCGGCCGAATCTTTTCGC AAACCGGACAGGATATCATGCAGGCCTTGACGCGCACAGG
oLAM279	AGCAGAAGTTATCATTCCGGCTCCATCCTGTGCGCTGCAAGGCCTGCATGATATCCTGTCC GGTTTGCGAAAGATTCCGGCCGCCCGCATTGCTTTTCGCGAGGCCGCCGTTTCGCTTCATT TTCTCTGCCCGGCAGGAAAGTAGGACGCATGTCCG
oLAM345	TCCTTTTTTCCATGTTTTGTAAATTAGATGCTACAAATGTAGTTAATTTTATTTATACCTTT GCGACTCGTTTATAAAAAGGAGAGAAAAAGAAAATGGAAACACGACGTATAACCTATACGC CTCAAGGAGGTGTTTGTCTAAGTTGATG
oLAM353	TCCTTTTTTCCATGTCATCTCCTGGGGTGTGCTTGCCGGTACCTTGGGGTGATCGAGT TGTGTATGTATAGGGTGCCAGGTGACAGGCATTTTGATATGGGGGGTCACTGGGCGGAC AACCAGTATCATTACCCAAGAGCGACCACTCT
oLAM455	TCCTTTTTTCCATAATCTGTCTCCTCGGTAAATTAATTTCTTTTTATAAATTATATCATTTAT CCGATTATATTTAAATATATATTTTCAAAAATTTATTTTGTAACATATCCGATATATATTTTA TATTTTATTTTAGTTACAAATGATA
oLAM463	TCCTTTTTTCCATAAAAACCTCTAAAATAAATTGATTTCTATATTTTCTTAGACTGTGATCC GAGGAAATTCAAAACGAGAAAACGTTTATAGTTTTTCTGGCTTTTCCGGGTTAACCTT AAAAATTGAATATACGAGGAACCTTTTTT
Part2_KanP_pR L27_gBLOCK	TCCGCGGAAGACTTTCAGcacgttgctctcaaatctctgatgttacattgcacaagataaaaaatatcatcatgaac aataaaactgtctgcttacataaacagtaatacaaggggtgtTGATAAGTCTTCCATGAAC