

S1 File. Sequence of Synthetic HD1 and HD2 genes

HD1 (cloned into *Eurofins in-house standard vector pEX-K4-HD1*)

ATGGAACCGAGTCCGGCGAGTGACCTGTCAGCGCGTCTTGACAGTCTCGTGGAAACGTTCTGATCAGCATTCCG
CGGGAGTCCGATCGAATTATCCCAGATCTACGATGCGTTCCGCCGAAGAACGCTGCAAAGCGCGTTCTCAAGGA
CTGCTGACCTTCGCCTTTCAGGAAGAAATCTCCGCTTCAGTTGGCTTTCTCTCGACTCTCGCCTCGTGCATGATGAA
TATCCGGAAGGCAACAAAGACTTTTCAGACCACCGTCATTGGCATCTTAAACAATGCAAACAATACGCCAGAGCTGT
GTCTAGCCGCAACTTAGTTTTCCCTCCGAAAGATTCTGGCATCGAAAGCGGATTTCGGGCCGCTCGATGCGTCCAC
GCACAGAGCATCCCTCTTGGTTTCGGCATCTGCGCGATTGGTTTCATTGTGCATCTGGATCATCCGTATCCTTCTGC
TCAGGAGAAAGAGGAGCTTGCTCTGGCACGTAACCTGACCAAGAAGCTCGATCAACCTGTGGTTCAATAATATGC
GTCGTCGACGGCTGGATGGATTTCGTACGCACACACGCGTTGAACAATCAGACCCGCATGAAAGAAGTGGTGT
TGCTTACCCTGCTCTGCCTGCCGTTGAACGTTACATCCGGACCTTCCGTTTGAGCTGCGGCAGCAGCTCGATC
GCATTCCGATCATGTGGATGAGAAAGTGCATGATCGCGTGCCTGATTGGATGACAGGTGCACTGGACTACAAAG
ACGGTTTTGGGTCCCGCCGAAGGAATTGGCCGTAGCCCGAAAAGAAGAACGAAGTCAACAAAGATACCGCGA
AAAGCGTTCCAGTCCATCTTGTACAAACAAGCCTTTACTGCGAAAGATGCACAGCCGTGGCTGACCAGTTACCC
CACCGCCGTAGCGGCTTGATTGGCTATCCGAGTTCAATCCCGCTGGCGAATTGTCCGACGCCGAAAAGTAGCAA
ACGGCTGTTTTCGGATTGTGGTCCGCACCTAGCTGCACCGATTGACCCGGTCAACAAATACCACCAGTTAATTAAC
CTCAGCTCAGTCTACCCAGGATCTGGAGGGTCTTTGCTGACTCACCAACCATTGAGCGCGTATGCTTACTATC
CTACTCATCCGAATCCAGAAATCCGTTACCAATGCTGGTCCACACCGTATCGTTCAAGCAGCGATTTCGAGTA
TCCAGCCTATGACCTGAAAGCACCGATTTCGCGCGCAAACCTGGCTGCCGTTGACCCTGCGATTGATCCGTCAAAT
GGGCCAAACATTCACCAACGTAGCGTTTCCCATACCAAGCCGTGCGAAAAGCACGGTATCCTCTCTGGCAACGA
GTACCACGCTCCAAAGCACGCGCTTTCTGTGAATGAAAGTCCCGTAATGAACTGGCGGCCAAACTGGAAGCCC
TTCGCATCAAGAAAGAAGCGCTGAAGAAAGAGAAAGAAGCAGTTGCGCGCCGAAGCTGAAGCACTGGCGGAAGTAT
TCGACTGCTAA

HD2 (cloned into *Eurofins in-house standard vector pEX-K4-HD2*)

ATGTATAGCTTACCAAGTTGCCGCAGAAATACACTGGTTTAGGAGATGTCTTTGATTCTAACATTGACAGTTGAG
CAGCAAAGAGTTTGCTCTCGAAGATCTGTATCTGCCAATCCCGACGTCCATTTCGCGAGACTTTGGAGGAACTGGGT
ACGCCGCATACCCTGGCCCGCAATTTAGGCGCCCTGTACCTGAGTCGTGCGATGGCCGCTGCGCGAACTGAGTTTA
TCGCAGTTTGACACCGCATTCCCTGCCGAACGCACGTTTCTCTTGAAGCCAACCTCCCTCAAAGTAAAGTGTAA
AGGCCTGCTTAAAGCGACTCTGGAATAACGCTACAGCATGGAAGTGTTCACCATCAGGAAACCATTCAGCTG
GCCGGTGTCTGGACCTCAGACGATGAACAAGCACAGTATCCGTACGCCGTAGCTCATTACGAAGAATACGAT
TGACACCCTCCAAGCCCTGTATGACCTGAACCAATATCCGAACCCGATTGAGCTGAAAACCATTGCAGTTAAAGT
GGGCTTACAGCCGAAACAGATTTCGTTGGTTTCAGAATCGCCGTAATCGGCGCTCTAGCCCGCACGGTCCC
ATAAGAAACCCCTTAAATCTCTACCCGTGCTACTGTTGCGAGTGACCTGAAGTTCAACAGCGTCCGCAAACGTTGT
TCGCGCCGTACTACAAGCATCGAAAAGGAGCGCAAACCGAGGGTGTGCCGTACAACTGGGCTCACCGATCTTC
TTGCAGACCAACAAAACCCATACGTTTCTCAGTCGGAAGGCCGCTCTCGCGTTGGTAATTCGTTAGTGGCAGGAC
TGTTGATACATCGCCCAACGAACAGGATGCGTATGCGCTTTGGAGTGCCGTTGTGAGCGATCGTAGTGCAGCATA
TGCGAACAGTAAGCATGTGCCTCAGATCGAACCATCTGCGCTTTGCCATTCCGGAACCGCGGATAGCATGTC
CGCGCAACGTTCCGAGAATCACTTCAATTCCTGCTCGAAATCGTCCAGTAGCCATCCGGCGTTTCTCCGGTGT
GGGTCTAGCGAAACGATGGAAGTGCATCCGGTAGATTGGACCATGGTTTTGCGCGCTTCACTCTCGCAATATTG
CACCACGTAGCGAGAAACCGTACGCTCGCTGGGAAACGAAAACAGGCCTTGAAGTCAAGATGCCATGCTGGATG
TGAACCTGAACATGACAACGGGAAATAA

Note:

Underlined sequence: N-terminal region

Bold sequence: Homeodomain region