

10 20 30 40 50 60 70 80 90 100
 Human Id1 GTTCCATGGCAACGCGCGCGCGGGCGCCAGCC-TGACAGTCCCGTCC--GGGTTTTATGAATGGGTGACGTCAGAGGCC-TGGGGTTAAAGGGTCTGAGCCG
 Human Id2 GTTGGCATGGCAAGCGCGCGCGCGGGCGCCAGCA-CGACAA--GGCTGCAGGGCCGGC-GTGAATGGGTGGGTGACGTCAGCGCC-TGGGGGAGAGAGTCTGCTCG
 Human Id4 GTTGTGAGGGCAACGCGCGCGCGGGCGCCAGCG-CAGRGGGGAGGC--GGGTTCCGTGAATGGGTGACGTCAGCGAGC-CGGGGCAGCGAGTCTGGGGG
 Rhesus GTCTCCATGGCAACGCGCGCGCGGGCGCCAGCC-TGACAGTCCCGTCC--GGGTTTTATGAATGGGTGACGTCAGAGGCC-TGGGGTTAAAGGGTCTGAGCCG
 Mouse GTCTCCATGGCAACGCGCGCGCGGGCGCCAGCC-TGACAGCCCGTCC--GGGTTTTATGAATGGGTGACGTCAGGGGCC-TGGGGTTAAAGGGTCTGAGCCG
 Rat GTCTCCATGGCAACGCGCGCGCGGGCGCCAGCC-TGACAGCCCGTCC--GGGTTTTATGAATGGGTGACGTCAGGGGCC-TGGGGTTAAAGGGTCTGAGCCG
 Guinea Pig GTTTCATAGCGACCGCGCGAGCGGGCGCCAGCC-TGACAGCCCGTCC--GGGTTTTATGAATGGGTGACGTCAGGGGCC-TGGGGTTAAAGGGTCTGAGCCG
 Cow GTCTCCATGGCAACGCGCGCGCGGGCGCCAGCC-TGACAGCCCGTCC--GGGTTTTATGAATGGGTGACGTCAGGGGCC-TGGGGTTAAAGGGTCTGAGCCG
 Dog GTCTCCATGGCAACGCGCGCGCGGGCGCCAGCC-TGACAGCCCGTCC--GGGTTTTATGAATGGGTGACGTCAGGGGCC-TGGGGTTAAAGGGTCTGAGCCG
 Opossum GTCTCCATGACGACCGCGCGCGGGCGCCAGCC-TGACAGCCCGTCC--GGGTTTTATGAATGGGTGACGTCAGGGGCC-TGGGGTTAAAGGGTCTGAGCCG
 Chicken GTCCGCATGGCAACGCGCGCGCGGGCGCCAGCC-TGACAGCCCG-CG--GAGTTTTATGAATGGGTGACGTCAGGGGCC-TGGGGTTAAAGGGTCTGGGGAG
 Fugu GTCTCCATGGABACCGCGCGAGCGGGCGCCAGCC-TGACAG-GCGTCAA--GGCTCGGATGAATGGGTGACGTCAGCGCC-CGGGGCTGGCAGTCTGCTGG
 Tetraodon GTCTCCATGGABACCGCGCGAGCGGGCGCCAGCC-TGACAG-GCGTCAAG--GGCCGGATGAATGGGTGACGTCAGCGCC-TGGGGCTGGCAGTCTGCTGG
 Osticklebaek GTCTCCATGGABACCGCGCGAGCGGGCGCCAGCC-TGACAG-GCGTCAA--GGCTCGGATGAATGGGTGACGTCAGCGCC-TGGGGCTGGCAGTCTGCTGG
 Madaka ATTCTCCATGGABACCGCGCGTACGGCGCCAGCC-TGACAG-GCGTCAA--GGCGGGATGAATGGGTGACGTCAGCGCC-CGGGGCTGGCAGTCTGCTGG
 Zebrafish Id1 GTTGTATAGGACCGCGCGGTGGCGCCAGCC-TGACAG-GCGTCAA--GGCTCGAATGAATGGGTGACGTCAGGGGCC-TGGGGCTGGCAGTCTGCTGG
 Zebrafish Id2a GTCTCCATAGCAGCGCGGTGGACGGCGCCAGCA-GGACT--GGCTGGAGGGCCCGCTGTCGAATGGGTGACGTCAGGGGCC-TGGGGCTGGCAGTCTGGAGA
 Zebrafish Id3 -----CGTGAATGGATGACGTCGGGAGCC-CGGGGCTGGCAGTCTGGAGT
 Amphioxus GTCCGCATAGCGACCGCCAGCCCGACGCCAGTT-TGACAG-GCATCAAGCGGG--GATGAATGGGTGACGTCAGGACAC-TGGGGCTGGCAGTCTGGAGT
 Oca Urochin GTTACTATGGCAACCGCCAGACCGCGCCCGTC-TGCTATCGGATTG--TGGTGGATGAATGGGTGACGTCAGAGATCGTGGGGCTGGTCTGGCCGTGA
 Acorn Worm GTGTCCATAGCGACCGCCATCGTGTGGCCAGTC-TGACAG--CATTC A--TAGCCCAATGAATGGGTGACGTCAGAG-AC-TGGGGCTGGCAGTCTGGAGT
 Limpet GTAAAGCATAGCGACCGCATATACGGGGCCGGCT-CGACAGGAAATACAT--ACAGTGTGAATGGGTGACGTCAGAAATG-CGGGGCTGGTCTGGTCTA--
 Sea Hare GTGGGT--CGACCGCGTGCCTGGGGCCAGTAAACAAGCAAAAACGTG--CTCCACCTGATGCGTGACGTCAGCATGC-CGGGGCTGGTCTGGCCCG

Figure S2.