

Dataset S1.

Sequences tested in zebrafish transgenic enhancer assays

>Bicore1_human

CTAGCTAGACCAGTTTGTCTGTCCTCCATGGCGACCGCCCGCGGGCGCCAG
CCTGACAGTCCGTCCGGGTTTTATGAATGGGTGACGTACAGGCCTGGCG
TCTAACGGTCTGAGCCGCTGGTTCAGACGCTGACACA

>Bicore1_zebrafish

TGCCAGCCTGTTGTTTGTGTTGTTGCTATAGGGACCGCCCGCTCGGGCGCCAG
GCTGACAGGCGTCAAGGCTCGAATGAATGGGTGACGTACAGGCGCTGGCG
CCCGGCAGTCTGCTTCGGTTTTGTTGGACAAAT

>Bicore1_urchin

GTTACTATGGCGACCGCCAGACCGGCGCCCGTCTGCTATCGGATTGTGGG
TGGATGAATGGGTGACGTACAGATCGTGGCGCCGGTCTGTCCCGTGAG

>Bicore1_limpet

TATCAGTGAGTCGAGGGCGGCTTCTTTGAAGTTATGTTTGATTGACAGGT
ATGTAACGCTAGCGACCGACTATACGGCGCCGGCTCGAGAGGAAATACAT
ACAGTGTGTAATGGGTGACGTACACAAGTGGCGGCCAGTCAGTCTGCTAG
CTGAATTGTTGATTGTAGAGGTTTACATCGAGTTATCACGTGCAGAAAAAC

>Bicore2_human

CTCCCACCCTGTTTTCTCCCTCCCCCCTTCTTTGGGCATCTCCACCCC
TCCATCAATTGTCAATGTTTCTCGACCGCAATCAATCAGTTATTTGTCAG
CTCTTGTCAATCCTCCCGTGATTTATGTGAGCTTTTGTGCTGATTACAA
GGCGGGTGCGACTTGAAGGGAAAAAGAGAGAGGGGAGAGAGAGACGGAGAG
GAAGGAGGAGATTGAGAGGGAACCTGGAGGAGGGGAAAAAGAGGAGCGGCCT

>Bicore2_zebrafish

AAGTGACTCTTCTTCTGGATGCTTCTTTTGGCCTTTTCTCTGTCACTCGC
GGCACATAATCAGCTTCAAAAGCTGACGTGAAGTAAGAAAAGGATTGACA
GCGACTGACAAATAACTGATTGATTGCGGTGAGCAGAATTGACAGTTGA
CGGAGGGGTGGGGATAGAAATAGAAGGGCGGTGTATATTATATTGAAAAAC
ATGTGACATTACATCCCTCTACTGCATTGGTCTGCTCTTGT

>Bicore2_urchin

CGATTTATCTCGGGGAATCATACCCCTTTTCAAAAGCCGTTTTTCAAATT
ACTCGAGCCATGTTATCAACAACAAAACGCTGACATAAATCAGACGGAAT
TGACAAGGCTGACACCGCATTGATTGATCGCAGAACAGCGAGCGGCACT
GGACGCCTGCCAACGGGAATTGCTAATCGCGAATTTGATTGGCTGGCGCG
GAGCATGTGACAGGATCACATATCAATCATCCCCG

>Bicore2_tick

CCGACGGCCGTCCACCCAAGCGGCCCAAAGGAAGACCGCCCGGCTCTGA
CAACAAAAGCTGACATAAATCATGCCTGATTGGCAGCTCTGACAACGGGC
TGATGGATAGCGTTGTAAGGTTGACAGCTGGCCCCACGCCAGATCATT
GCTCGGCCGGGCTTCCATTGGCCGCGCGACCGCGGAGCGCTTCGGGGGG

Sequence tested in sea urchin transgenic enhancer assay

>Bicore1_urchin_long

CGTGGAGGCGTCAAATAGTCTCTGCAATCTACAAGCGCAGACCTAACACA
AAAATCCGATATAAAAAGACGATTGCCATCTTATGGTCTTCATTTGTATTT
TGACGGATTTTTTAGTAGAATATGAGCAGATAGTACTGATATGGTTTTGT
AGACAAATAGGATATCATAATCCTGAAAATCTGTATTTTAAACTTCCTCA
AAAGTTTTGGACTTTCTTAAAGGTCTGTAAAGTAGACTTGGCAATGTCTC
AGGCGGGAGTGCAGGTGTGCAAGCGACGGGTGTGAATAGTGGGCGCCCC
AAAGACCCGACCACCAGTTTAGCAAAGTGACGATCCCAAAGCCATTTAT
CGCTGCTCTCGATAGTTTGTAGTAATTGATTTCAGGCTGCGGGACGCCTT
TGATGTTGGTGATTGGCGTGTGCGTTACTATGGCGACCGCCAGACCGGCG
CCCGTCTGCTATCGGATTGTGGGTGGATGAATGGGTGACGTCACAGATCG
TGGCGCCGGTCTGTGCGCGTGAGCTCTGGTAGTATTGGAGGGGGCTTAG
GAGGGCCAATTAATCACCTGTCACTGGGAACCAGCGGAGTTCCACCACAC
CCCTAGCCTCAAAATACGAACCCCTGTACAACAGGTGGATGCCACAGACA
ACTAACATTATCCATCCGAACATTCTGATACTCCAGATGATTAATGCAAC
CATTCCAGAAATGAAGTCGCTCTATTTTAGGGTACTTTAAAAAGTTACGA
AACAATAAATGAATAAGAATAACCGAATGTATGGATACATTTTCGGTT
TGAGACTACGAAGTCTCGGGGGAGGTGTATGAGCTTATGAGGGGTATGTT
TACAGGTTTACCTATGGTAAAGAATAGGGTGAGTGTGTTGGATTACCATCA
TGTTCTGCTGCACAGCTGTGAACTGGTTCATGTGACCGCCATATACCAAG
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Sequence tested in mouse transgenic enhancer assay

>Bicore2_human

CCAGAAGGAGCACCCGGTGGGAGTGTGGACACCGGCCGGACTGTCAACTCCAGGGGCGAAGGGAACCTGCACACCCAG
TGTTTTTTCCTTCGAGTAATCGAGATCCC CGCGCGGCGCAGCGCAGCCACCAGGGTAAGAAGGCAAGGTGGGGAGCC
GGAGCTGGAAGAAGCCCGCCCGCTCTAATTTCTCAGATTCCGCGGCGGAGAAACCAGAAGCTAGATGGGCAG
TCGCAGCGGCGGGCTCAACACCGCGAGGAGCGCTGGGCTCTCCGCCCTTCCCGGCCACGTGACGCCCGGGGACGC
GTAGATTGGGGCAGCAGCGGGGTACATGTTTCTCTGTTTACCCTCAGTCTGTCCCCAACCCCCATTCTTAC
TCTCCACCCTGTTTTCTCCCTCCCCCTTCTTTGGGCATCTCCACCCTCCATCAATTGTCAATGTTCTCGAC
CGCAATCAATCAGTTATTTGTCAGCTCTTGTCAATCCTCCCGTGATTTATGTCAGCTTTTGTGCTGATTACAAGGC
GGGTGCGACTTGAAGGGAAAAAGAGAGAGGGAGAGAGACGGAGAGGAAGGAGGAGATTGAGAGGGAACCTGGAGGA
GGGAAAAGAGGAGCGGCCTCCTGGGATGGGGTGGGGTGGGGCTCTAAGAAAAAGAATGAAAGAGGCGCACGGTG
TCAGGAAAATGAATAGCGAGAGTAAAGTGCGCAGGTGCGCCAGGGCGCCGAGAGGGGCGCGCAGGCCTGGAGTGTG
CGCCTGCCCTCTCGGTGTGCGGAGAGACGCCCTTCCACCTCTGGGAGCCTCGGTCTGTTGGGGTTCGCGGAGTTCCGGG
GCGGCTCCGGGTACCCGAGACCAGCGGCGGCAACTTCTAACACGGGAGATTTCCCGCCACCCACCCCGCCGCGCG
AGTCCTCGCGGGGCGTGTGCGTGCGGAGGTGAGGCTGCCACCCTCTGTAGTTCCCTAACCCAAACTCGGAGACT