

**Supplemental Table 1, 2 & 3. Primers used in this study.**

**Table 1. Recombineering primers**

Name	Sequence 5'-3'
REXVenu s-F	GGTTGATATATCCTGGTGTAACCTTCAAGAAGGGCACAGGCAGGAAAACATGGTGAGCAAGGGC GAGGAG
REXVenu s-pL451-R	CACTGGGGGCTCTTCCACCCAGGCCTTTCTGGTGTCTTGTCTTTGCCGTCGCTCTAGAACTAGTG GAT

**Table 2. Q-RT-PCR primers**

Gene	Forward primer 5'-3'	Reverse primer 5'-3'
REX1	GCCTTCACTCTAGTAGTGCTCACAGT	GGCAGTAGTGATCTGAGTAAGCTGTCT
OCT4	TGGGCTCGAGAAGGATGTG	GCATAGTCGCTGCTTGATCG
NANOG	TGATTTGTGGCCTGAAGAAA	GAGGCATCTCAGCAGAAGACA
SOX2	TACAGCATGTCCTACTCGCAG	GAGGAAGAGGTAACCACAGGG
ECAD	AGGAATTCTTGCTTTGCTAATTCTG	CGAAGAAACAGCAAGAGCAGC
NCAD	CCCACACCCTGGAGACATTG	GCCGCTTTAAGGCCCTCA
EOMES	CGGCCTCTGTGGCTCAA	AAGGAAACATGCGCCTGC
FOXA2	GGGAGCGGTGAAGATGGA	TCATGTTGCTCACGGAGGAGTA
CDX2	CTGGAGCTGGAGAAGGAGTTTC	ATTTTAACCTGCCTCTCAGAGAGC
SOX17	GGCGCAGCAGAATCCAGA	CCACGACTTGCCCAGCAT
BRACHYURY	TGCTTCCCTGAGACCCAGTT	GATCACTTCTTTCCTTTGCATCAAG
MIXL1	AAGCCCCAGCTGCCTGTT	CCCTCCAACCCCGTTTG
AFP	TGGGACCCGAACCTTCCA	GGCCACATCCAGGACTAGTTTC
HNF1B	TCACAGATAACCAGCAGCATCAGT	GGGCATCCCAGGCTTGTA
GATA6	GCGGGCTCTACAGCAAGATG	ACAGTTGGCACAGGACAATCC
GATA4	TCCAAACCAGAAAACGGAAGC	GCCCGTAGTGAGATGACAGG
CER	ACAGTGCCCTTCAGCCAGACT	ACAACACTTTTTTACAGCCTTCGT
GSC	GAGGAGAAAGTGGAGGTCTGGTT	CTCTGATGAGGACCGCTTCTG

**Table 3. Bisulphite DNA methylation sequencing primers**

Gene	Forward primer 5'-3'	Reverse primer 5'-3'
REX1	GGTTTAAAAGGGTAAATGTGATTATATTTA	CAAAC TACAACCACCCATCAAC
OCT4	ATTTGTTTTTTGGGTAGTTAAAGGT	CCAAC TATCTTCATCTTAATAACATCC