

Supplementary table 1

Primers used for RT-PCR analysis

Gene	Primer
MTA1	Forward Primer: AGTGCGCCTAATCCGTGGTG Reverse primer: CTGAGGATGAGAGCAGCTTTCG
MTA1s	Forward Primer: ACATGTCGTCTCTGCGCATCTTG Reverse Primer: CTGCGGTTTGGTCCTGGCCTCTCTC
Wnt1	Forward Primer: AGCCCTAGCTGCCAACAGTA Reverse Primer: GGAATTGCCATTTGCACTCT
Six3	Forward Primer: TCAGCAGAGTCACCGTCCAC Reverse Primer: TGGAGGTTACCGAGAGGATCG
β - actin	Forward Primer: GTCGTACCACAGGCATTGTGATGG Reverse Primer: GCAATGCCTGGGTACATGGTGG

Supplementary table 2

Primers used for ChIP analysis on Six3 promoter

Six 3 promoter Region	Primer
1	FP: TTCAATGCTGCACTCACTGTGGA RP: TGGACTGACCTGAGAGGAGAGGA
2	FP: TCCTGACCAGTGGTCACATA RP: GAGTGCAGCATTGAAACATT
3	FP: CTTACTCAGGGTGGCCTCTAA RP: TCTATGTGACCACTGGTCAGGA
4	FP: TCTTCTGGAAAGGCAGCTTAGGA RP: CGCCCAAGGCCTGAAAGCTCATAA
5	FP: GGAAAAGCACTCCTGGTGCAGA RP: TCCTAAGCTGCCTTTCCAGAAGA
6	FP: CTCAGTTCTTCATGAGTGGCGA RP: CCAGGAGTGCTTTTCCGCTCAACT
7	FP: CTCTACCAATGCTCAGCGAAT RP: TCGCCACTCATGAAGAACTGA
8	FP: TCCCGCAAAGTCTCTGACTGT RP: CATTTCGCTGAGCATTGGTGAGA
9	FP: ATGCACCAGGAAAGTTGAGGCA RP: GAAGCACACTTCCTCCTTGTT
10	FP: AGTTCGTGGTACCCACGGGTGA RP: GCCTCAACTTTCTGGTGCATA
11	FP: GAAGGAGTAGATGCTTGTCTTA RP: TCACCCGTGGGTACCACGAACT

Primers used for ChIP analysis on Wnt1 promoter

Gene	Primer
mWnt1 (Proximal)	FP: CTTGAGTTGGGCAGGTACGGT RP: AGGGGGAGTGTAAGCGTCGGT
mWnt1 (Distal)	FP: CGTCAGCCTGGATTAATCTTCG RP: TTGGGAGACACTTCGTGAACG
hWnt1 (Proximal)	FP: TTCCATCAGGCTTCATTTGG RP: ACTTGTCCAAGGTCCACGTC
hWnt1 (Distal)	FP: TCATCCACGGTCAAACTGA RP: CTAGCCCTCCAGCTTCATTG

Supplementary table 3

Primer used for the qPCR-ChIP analysis

Gene- Region	Primer
Six3 promoter Region 2	Sense: GACAGTGATTGGCAGTGGTTG Antisense: ACAGTGAGTGCAGCATTGAAAC Taqman probe: 6FAM-ACGCCACAACGACACGCCACAGAC-TAMRA
Six3 promoter Region 3	Sense: GGTGGCCTCTAAAGTTTCTGTATC Antisense: GATGCCCACTTTTCTACCATG Taqman probe: 6FAM-ACCCCTGTCATGCCCAACATCCCC-TAMRA
Six3 promoter Region 6	Sense: GGAAACCCACCCGTAGGAATTC Antisense: GGGGAGGAAGGAATGAAAAGGG Taqman probe: 6FAM-CCCTCCACACGCGGCACAATACCC-TAMRA
Six3 promoter Region 9	Sense: CTCCTTCGTTTGCAGCTTGC Antisense: GGCTCTAGGACATTGGAAGACAG Taqman probe: 6FAM-CCCAGACCACCCGCTACCCAGCA-TAMRA
Wnt1 promoter	Sense: TTTAGCCACTGAGCCACTCTC Antisense: AGTGACTGCTGGGATTACAGG Taqman Probe: 6FAM-TCCGCCACCGTACCTGCCCAACT-TAMRA
Wnt1 enhancer	Sense: TGGGGCAGGAGACACTAAGC Antisense: AGGGTTGGTGCTGAGAGTGG Taqman Probe: 6FAM-CCAGGCCCATCGAGGTCCCAGGAG-TAMRA
Wnt1 non- specific region	Sense: TCCTAAAGTTGGTGAGAGAAGAGG Antisense: ACTCCAGAGTCCTGTAGGCTAC Taqman Probe: 6FAM-CACAGGCTTGACCCGCAGAAACCC-TAMRA

Supplementary table 4

Primers used for the site directed mutagenesis of human MTA1s K428A

Gene	Primer
hMTA1s K428A	FP: TGGAGAGAGGCCAGGACCGCACCGCAGTAA RP: TTA CTGCGGTGCGGTCTTGGCCTCTCTCCA