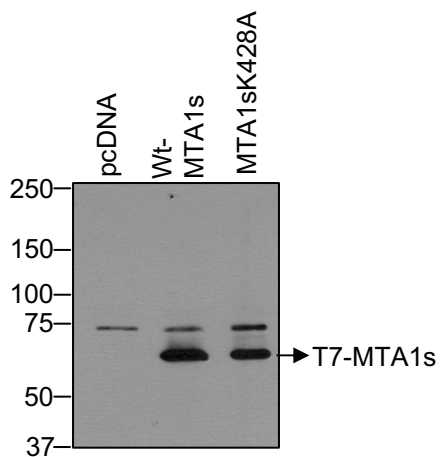


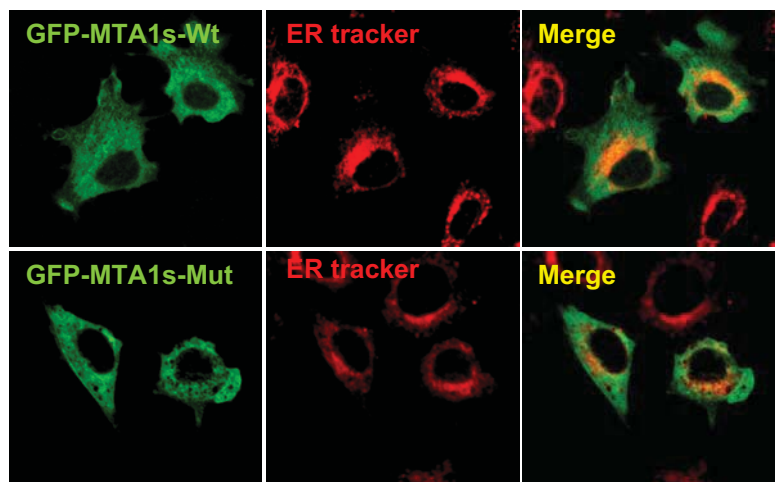
WT MTA1s: MSSLRILLDILEEIWWLENANPVRWREARTK**P**Q

Mut MTA1s (K428A): MSSLRILLDILEEIWWLENANPVRWREART**A**PQ

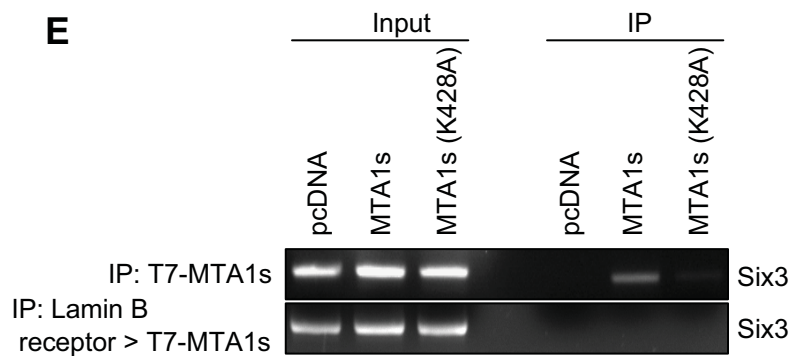
C HC11 Stable Clones



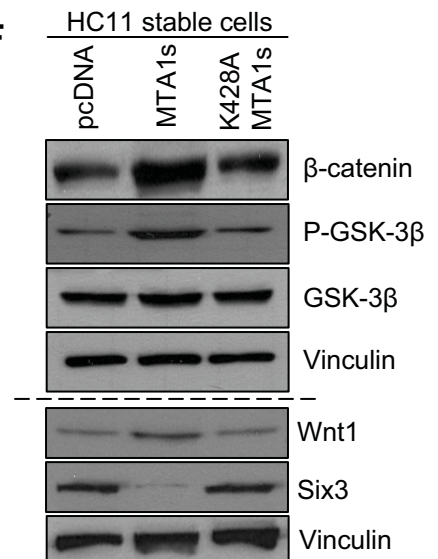
D HC11 stable cells



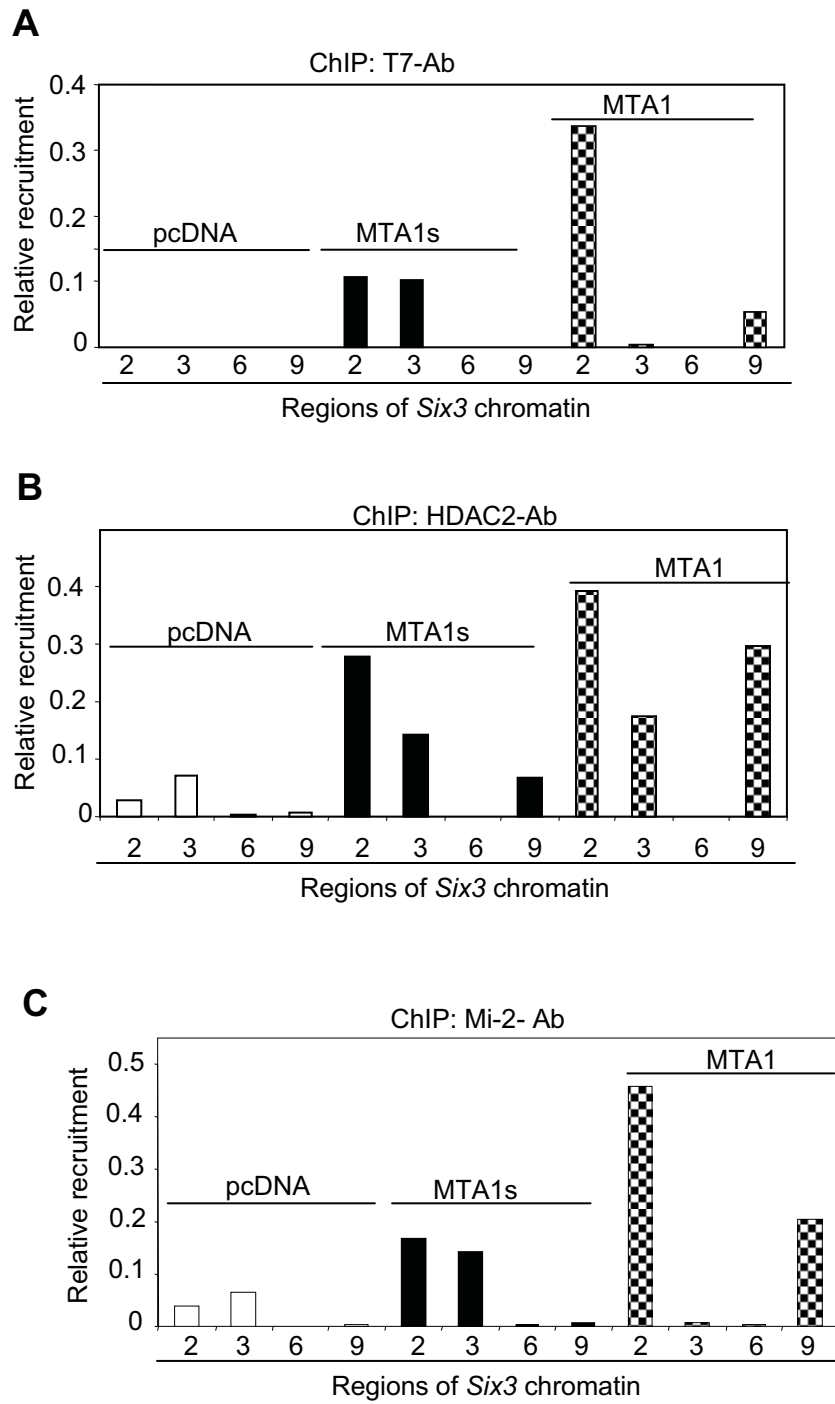
E



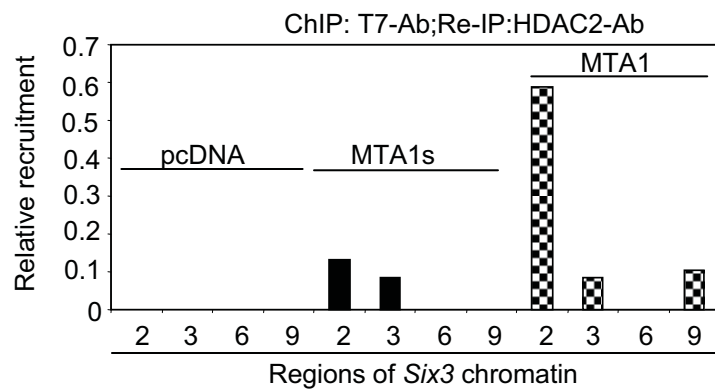
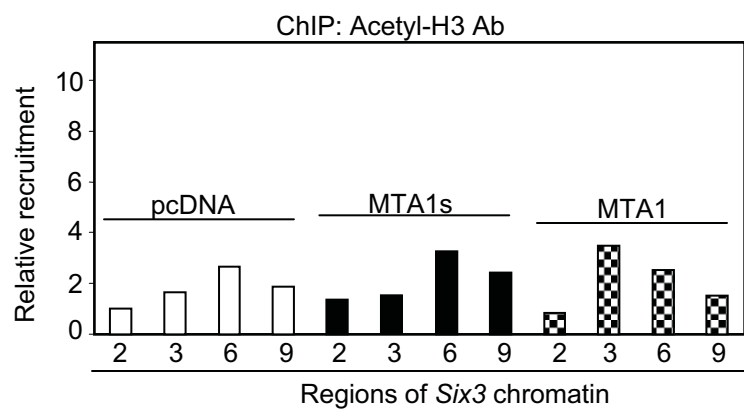
F



Supplementary Fig. S1



Supplementary Fig. S2

A**B****Supplementary Fig. S3**

Six3 promoter Region # 1

TTCAATGCTGCACTCACTGTGGA TTTAGGGGAGAT **ATTA**T GAGGCTGTTGTC **ATTAG** GGCGA
TTGCTGTGGAATCGCTGAATCTTGACTCGGCCGTGGTTGGCTCTCGCTCTCCTCTCTCCCTC
TCCCTCTCTCTGCCTCGGGCTCGCGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT
CTCTCTCTCTCTCTCTCTCTGCGCGCGCGCACCGGGCCGCTCTCCTTCCCTCCCTCTCTAT
GTGGCTGCGCGGGTGTGTGTGTATGTGGATGTGTGTGGGGTGTGGGTGCCCTTACGTCCT
TCCCTCTCCCTCCTTCTCCTTCTGCTCCCCCTCCTTCCATCTCCTCCTCCCTCTCTCCTC
CTCTCCCTCCTCCTGGTCCTCATCGCCCCTCTCCTCCTCTTCC
TCCCCTCTCTTCTCCTCTCCCTGAA **TTTTTTCCTCTCCTCTCAGGTCAGTCCATGG**

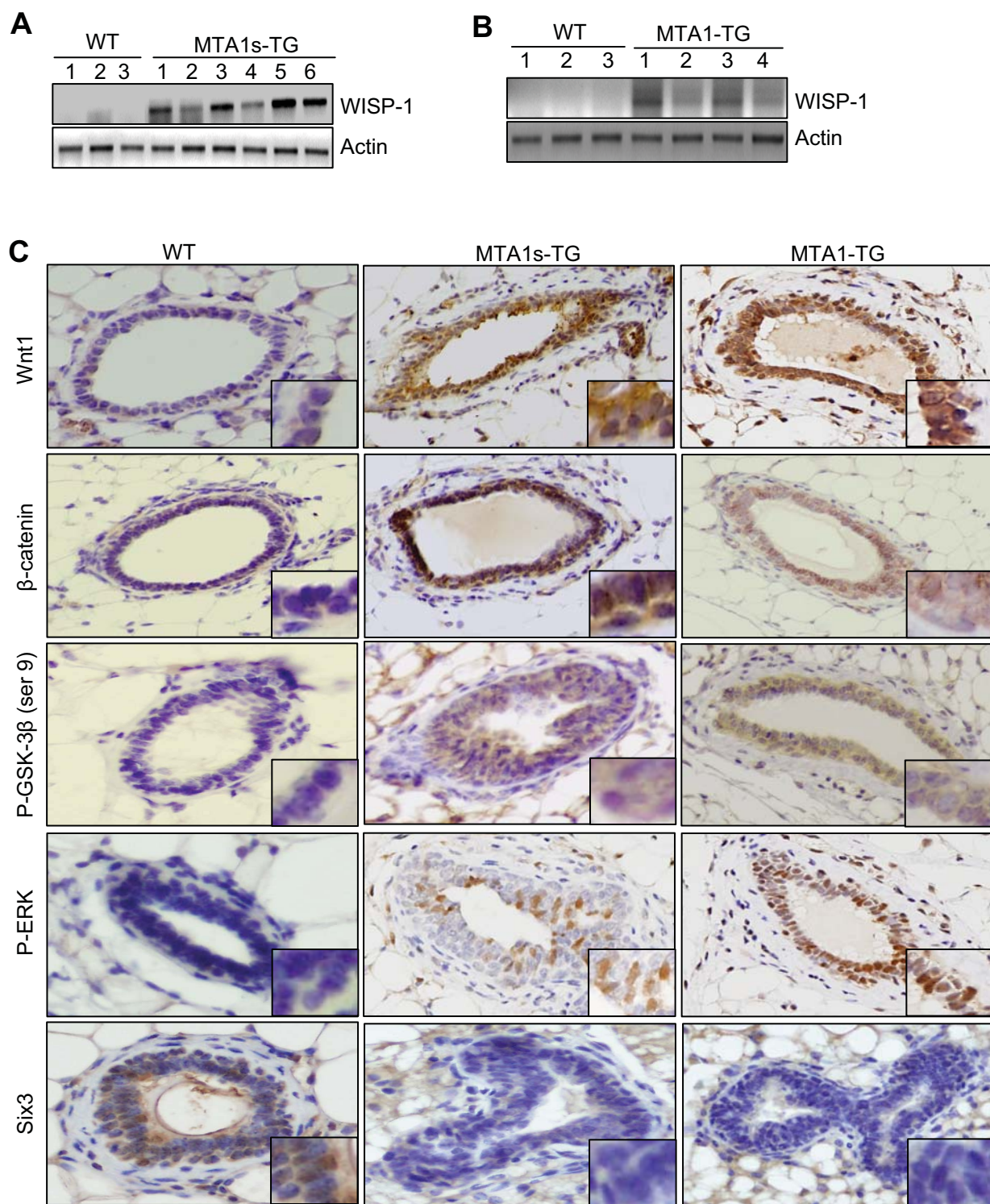
Six3 promoter Region # 2

TCCTGACCAGTGGTCACATAGACAGAAGGAGGTGGCTGAGATACCATGTGCAAACCTTGCCAGGT
CACCTGATCCCCAGCCTCATCTAAGGCTGCCTGGTGCTCCTGAGGCTGGAGTCTCTTCCTAACCC
CAAACACTCCGTGTAACGAATAGCTCGCTGCATTCAACTACTCTACTCCTATTCTTTTTCGAATTT
TGATCAAACTTCTTTGAGCAAGAGGAGGAGGAAGGAGAGAGAAAGAGAGAGAGAGAGAGAGAG
AGAGAGAGAGAGAGAGAGAGAGAGAGAGAGGAT **ATTA**AGAG **TTGC** AAAGATTTTTTTAATTCTGTT
CGCCCTCTTCTCCCTCACCCCCCCCCCTCCGGCTAAGTGGTAAAACCGTCCTTACGTTCTCAGT
ATTGATTGGCAGGGCTGACAGTGATTGGCAGTGTTGCCGTGGCAACGCCACAACGACACGCCA
CAGACCAATAGAAAAGCGAAACAA AATGTT**TTCAATGCTGCACTCACTGTGGA**

Six3 promoter Region # 9

TATGCACCAGGAAAGTTGAGGCCAACTGAGCTGTGTTTACTGTCCAGAAGGACAA **ATTACG**GTGGAAG
CCTGGTGCCCGGAGGCTAAAAAAGGAGGGGATATAAGGGGGAGGGAGCAGTTGTTGTTGTTGT
TTTTGTTGTTGTTGTTGTTGTTTCAAAGGAAAGTAATCGGAGTCCCTGAAGGGCTTCGGGGCCT
CTCCGCTGAGTACTGCGCTCCCCTGCGCCCTCCCTGGCGGTCTGCTCCAAGCTCCTTCGTTTGC
AGCTTGCGGGGAGGCCAGACACCCTGCTACCCAGCAATCTCTCTGTCTTCCAATGTCTTAGAGC
CCGGAAGAGGCGTTGCCCCAGGACAAACCTTCTGACCGTTTGGGTGGGTGTTCCGGGTTGA
GCATGGGTGAAGTGGGTGTAGCTGTCCCAGGCCCTTCTGGGACTCGCTTTCCTGGGCTTTCCTGT
AGCCCC**AAACAAGGAGGAAAGTGTGCT**

Supplementary Fig. S4



Supplementary Fig. S5