

**Supplementary Table 2. Lentiviral shRNA sequences**

shRNAs	Sequences
Luciferase	5'-CCGGGATATGG GCTGAATACAAACTCGAGTTTGTATTCAGCCCATATCTTTTTG-3'
USP9X-1	5'-CCGGGGTCGTTACAGCTAGTATTTACTCGAGTAAATACTAGCTGTAACGACCTTTTTG-3'
USP9X-2	5'-CCGGCGCCTGATTCTTCCAATGAAACTCGAGTTTCATTGGAAGAATCAGGCGTTTTTG-3'

**Supplementary Table 3. qRT-PCR Primers**

Genes	Sequences
<i>ACTB</i>	F: 5'-CATGTACGTTGCTATCCAGGC-3'
	R: 5'-CTCCTTAATGTCACGCACGAT-3'
<i>USP9X</i>	F: 5'-AAGTGAAGCATGTCAGCGATT-3'
	R: 5'-GCCACACATAGCTCCACCA-3'
<i>AXIN2</i>	F: 5'-AGCCAAAGCGATCTACAAAAGG-3'
	R: 5'-AAGTCAAAAACATCTGGTAGGCA-3'
<i>c-Myc</i>	F: 5'-GTCAAGAGGCGAACACACAAC-3'
	R: 5'-TTGGACGGACAGGATGTATGC-3'
<i>LGR5</i>	F: 5'-TGCTGGCTGGTGTGGATGCG-3'
	R: 5'-GCCAGCAGGGCACAGAGCAA-3'

**Supplementary Table 4. qChIP Primers**

Genes	Sequences
<i>AXIN2</i>	F: 5'-CTGGAGCCGGCTGCGCTTTGAT-3'
	R: 5'-CGGCCCCGAAATCCATCGCTCT-3'
<i>c-Myc</i>	F: 5'-GCTCTCCACTTGCCCCTTTTA-3'

R: 5'-GTTCCCAATTCTCAGCC-3'

*LGR5*

F: 5'-CCCCGCAAGAGATAGGAAGG-3'

R: 5'-CCCCGGCGAATGATAGGT-3'

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