

Supplementary Table S1. Primer and shRNA sequences

RT-PCR primers

UTX (KDM6A)	Forward : gacattgaggaagctctca Reverse : acttgcatcaggtcctccat
MLL4	Forward : ccagcggttccttctatc Reverse : cagtcagagcagtgccag
MMP-9	Forward : ttgacagcgacaagaagtgg Reverse : gccattcacgtcgtccttat
MMP-11	Forward : taggtgcctgcatctgtctg Reverse : tggctttggaggatagcagt
ERBB3	Forward : tagccagctgtccccataac Reverse : tgttgctcgagtccacagtc
Six1	Forward : gcaaaggtatgccaacgaat Reverse : tgatggccttcaaagtaccc
Cyclin A1	Forward : ctgctcgtcacttgggatg Reverse : attgcttcagactccacgg
Pim-1	Forward : gctcgggtctactcagcatc Reverse : ccagtccaggagcctaatga
CSPG4	Forward : cacacagaggaaccctcgat Reverse : cttcagcgagaggagcactt
Vimentin	Forward : gagaactttgccgttgaagc Reverse : gcttcctgtaggtggcaatc
Rb	Forward : ggaagcaaccctcctaaacc Reverse : tttctgcttttgcatcgtg
Rbbp4	Forward : gatgacctatgctctggagt Reverse : cgcatcaaactgagcatcat
Rbbp5	Forward : ggagccgagatggtcataaa Reverse : gggacacacgagaaccttgt
Rbbp6	Forward : cgacaccgtcacttttgatg Reverse : aggaatgagcgcattgtcat

Supplementary Table S1. Continued

ChIP primers

MMP-9 TSS	Forward : gtgaacacggtggctgaaa Reverse : caggctctttgaagcaggatt
MMP-11 TSS	Forward : ccaccagaggagaaactga Reverse : ccgcctttgttctgaactc
Six1 TSS	Forward : cctactcctccgccttctct Reverse : acctcctccttaggctttgc

Mutagenesis primers

shUTX-6 resistant mutation	Forward : gtcatcataaagaccactcagac cagcgagt ctacatcgtcagataat tctg Reverse : cagaattatctgacgatgtagactcgctgtctgagtggctttatgatgac
UTX catalytic mutation	Forward : ccagggagcagaacaccaggt gcg caggc ca aataacaactctgttcag Reverse : ctgaacagaagttgttatttgctgctgcgcacctgggttctgctccctgg

shRNA sequences

shUTX-6	Forward : ccgga agaccactcagatagtgaat ctcgagattcactatctgagtggcttttttg Reverse : aattcaaaaaaagaccactcagatagtgaatctcgagattcactatctgagtggctt
shUTX-8	Forward : ccgga agtgtgaagtcaatagtacc ctcgagggtactattgacttcacacttttttg Reverse : aattcaaaaaaagtgtgaagtcaatagtaccctcgagggtactattgacttcacactt
shMLL4-15	Forward : ccgga acctgaggaatcacacctgt ctcgagacaggtgtgattcctcagggttttttg Reverse : aattcaaaaaaacctgaggaatcacacctgtctcgagacaggtgtgattcctcagggt
shMLL4-18 *	Forward : ccgg gcagtttgtgcactccaag ctcgagcttgagtgacaaaactgcttttg Reverse : aattcaaaaagcagtttgtgcactccaagctcgagcttgagtgacaaaactgc

* This sequence is from the following reference.

Issaeva I, Zonis Y, Rozovskaia T, Orlovsky K, Croce CM, Nakamura T, et al. Knockdown of ALR (MLL2) reveals ALR target genes and leads to alterations in cell adhesion and growth. Mol Cell Biol. 2007;27:1889-903.