

Supplementary Table

shRNA sequences:

shRNA	Sequence (TARGET SEQUENCES IN RED)
scrambled_control	<p>Top:5'TCGAGAAGGTATATTGCTGTTGACAGTGAGCGCCTCGC TTGGGCGAGAGTAAGATAGTGAAGCCACAGATGTATCCTTAC TCTCGCCCAAGCGAGATGCCTACTGCCTCGG 3'</p> <p>Bottom:5'AATTCCGAGGCAGTAGGCCACCTCGCTTGGGCGAGA GTAAGTACATCTGTGGCTTCACTATCTTACTCTCGCCCAAG CGAGACGCTCACTGTCAACAGCAATATACCTTC 3'</p>
INTs11kd(1)	<p>Top:5'TCGAGAAGGTATATTGCTGTTGACAGTGAGCGAAGGA ACATGTTTGAGTTTAAAATAGTGAAGCCACAGATGTATTTTAAA CTCAAACATGTTCTCTGTGCCTACTGCCTCGG 3'</p> <p>Bottom:5'AATTCCGAGGCAGTAGGCCAAAGGAACATGTTTGAG TTTAAATACATCTGTGGCTTCACTATTTAAACTCAAACATGT TCCTGCGCTCACTGTCAACAGCAATATACCTTC 3'</p>
INTs11kd(2)	<p>Top:5'TCGAGAAGGTATATTGCTGTTGACAGTGAGCGAAGGG CAGGAAATGAGAAGAAAATAGTGAAGCCACAGATGTATTTTCT TCTCATTTCCTGCCCTGTGCCTACTGCCTCGG 3'</p> <p>Bottom:5'AATTCCGAGGCAGTAGGCCAAAGGGCAGGAAATGAG AAGAAATACATCTGTGGCTTCACTATTTCTTCTCATTTCCTGC CCTGCGCTCACTGTCAACAGCAATATACCTTC 3'</p>
HS2 3'eRNA(A)	<p>Top:5'TCGAGAAGGTATATTGCTGTTGACAGTGAGCGAACCT AGAAGCAACAGAATCAAATAGTGAAGCCACAGATGTATTGAT TCTGTTGCTTCTAGGTG TGCCTACTGCCTCGG 3'</p> <p>Bottom:5'AATTCCGAGGCAGTAGGCCAAACCTAGAAGCAACAG AATCAATACATCTGTGGCTTCACTATTGATTCTGTTGCTTCTA GGTGCGCTCACTGTCAACAGCAATATACCTTC 3'</p>
HS2 3'eRNA (B)	<p>Top:5' TCGAGAAGGTATATTGCTGTTGACAGTGAGCG AAGTGACATAACCTAGAATATAATAGTGAAGCCACAGATGTA TATATTCTAGGTTATGTCACTGTGCCTACTGCCTCGG 3'</p>

	Bottom:5' AATTCCGAGGCAGTAGGCA AAGTGACATAACCTAG AATATA TACATCTGTGGCTTCACTA TATATTCTAGGTTATGTC ACTG CGCTCACTGTCAACAGCAATATACCTTC 3'
--	---

Primers for confirming transgenic line

pLCR 622	AACTCGGTGATGATGGAAGC
pLCR 629	GCGTCAGAACTGTGTGTGG
inversePCR 5' pLCR	GAAAACAGGAGTGCAGAGGC
inversePCR 3' pLCR	AATGGTCCAAGATGGTGGAG

qRT PCR primers

GAPDF	TGGTGAAGGTCGGTGTGAAC
GAPDH R	CCATGTAGTTGAGGTCAATGAAGG
β major F	CACATTTGCTTCTGACATA
β major R	GCAGAGGCAGAGGATAGGTC
α globin F	CCTGGGGGAAGATTGGTG
α globin R	GCCGTGGCTTACATCAAAGT
GATA1 F	ACTCCCCAGTCTTTCAGGTGTA
GATA1 R	GGTGAGCCCCCAGGAATT
3'HS2 F	CCTTGCTGTGTGACATAACCT
3'HS2 R	TCTGTTGCTTCTAGGTATGAGTCT
5'HS2 F	CCCTGTTTCCTTATCTGACCTG
5'HS2 R	AGGCAGCTTCCTCATTTAGC
5mHS2 F	GGTCTTCTGGCAGACAGGTCA
5'mHS2 R	TGGACAGTGGTACTGCAATAATTG
3'mHS2 F	GGACCCTGCCTTGCTGTG
3'mHS2 R	TCAAGCCCATTCCAAATAGCA
5'mHS3 F2	CTGCTCTACGCTACATTATGCTACACTACTC
5'mHS3 F1	TCCTCGGTGACTGAGATTTTGGGAATGC

5'mHS3 R1	ACCCATTGAATCCTCATCAGGGAAACA
5'mHS3 R2	GCTGAGTCAAAGTTCTCTGTAGTAAGGGTC
3'mHS3 F2	CAAACATGAGAGCAGTAGGACAAAGGGT
3'mHS3 F1	AACCCCATGCCTCCTGATTTTAGGT
3'mHS3 R1	GACAGGGTATAGGTTTGTTGCTGTTGTTG
3'mHS3 R2	GTTTCTACACCAATCTTCTCAGCTCCTGC
5'mHS2 F2	GGAGAGACATCCAGCATTCAAACCCT
5'mHS2 F1	ACCCTGTTTCCTTATCTGACCTGC
5'mHS2 R1	AGTTGGATATAGAGTGAAGGAGGTCACAAC
3'mHS2 R1	ACATCCCTGATGAGTACCTCTCATGTTC
3'mHS2 R2	GCTAGGTGCTTCCTTTTCTTCCTCCA
INTs11 F	GAAGCTGCATCTTGGTCTCC
INTs11 R	TAGATGGGTCCATCGTAGCC
INTs1 F	CCCTGAGGACGACTTAGCTG
INTs1 R	GTGATGCATAGCCAGAGCAA
GAPDH_exon_exon F	CGTCCCGTAGACAAAATGGT
GAPDH_exon_exon R	TCAATGAAGGGGTCGTTGAT
GAPDH_intron F	CGTTGTGAGGTGCATACCTTT
GAPDH_intron R	GCCGAGAGGAATGAGGTTAG
M_45s_pre_F	CGTGTAAGACATTCCTATCTCG
M_45s_pre_R	GCCCGCTGGCAGAACCAGAAG
hs2_5core_F	TCCCTTCCAGCATCCTCATC
hs2_5core_R	TGCTTGGACTATGGGAGGTC
hs2_3core_F	GTGTGTGCCAGATGTTCTC
hs2_3core_R1	GCCGTTTGAGGTGGAGTTTT
hs2_3core_R2	CTGTCTCAGGCATCCATTTTCT
hs2_5flank_F	CTTGGACTCTTGTGGGGAATAAGA
hs2_5flank_R	ACCTGCTGGATGCTAAACACT

hs2_3flank_F	AGAAAATGGATGCCTGAGACAG
hs2_3flank_R	ACCTAGAAGCGGCAGAATCA
hs3_5core_F	TGAAAACATAGGAGTCAAGGCAC
hs3_5core_R	GTAGAGGGCAGACATGGGAA
hs3_3core_F	CCTGGAACCTCTGATAGACACAT
hs3_3core_R	ATTTGGGAGCAGGAGTCTCT
hs2_3flank_F	ACTTCTTCATGGCTGTCTCCT
hs2_3flank_F	TTGCCTAAGGTCGGACATGT
h_gata1_f	CCACTACCTATGCAACGCCT
h_gata1_r	ACCTGCCCCGTTTACTGACAA
h_usf1_f	CAAGAAGTACTGCAGGGAGGA
h_usf1_r	TATGCTGAGCCCTGCGTTT
h_bactin_f	CCAACCGCGAGAAGATGAC
h_bactin_r	ACGATGCCAGTGGTACGG
h_bglobin_f	GCACGTGGATCCTGAGAACT
h_bglobin_r	GCCACCACTTTCTGATAGGC
h_gamma_f	GATGCCATAAAGCACCTGGATG
h_gamma_r	TTGCAGAATAAAGCCTATCCTTGA
h_alphaglogin_f	GCCCTGAGCGACCTGCAC
h_alphaglobin_r	CACCGCAGGGGTGAACTC

ChIP Primers

LCR HS2 F	TGCAGTACCACTGTCCAAGG
LCR HS2 R	ATCTGGCCACACACCCTAAG
β major promoter F	AAGCCTGATTCCGTAGAGCCACAC
β major promoter R	CCCACAGGCCAGAGACAGCAGC
GAPDH promoter F	GATGATGGAGGACGTGATGG
GAPDH promoter R	GGCTGCAGGAGAAGAAAATG

HS2 core + 50bp F	CACACCCTAAGCCTCAGCAT
HS2 core +50bp R	TGCAGTACCACTGTCCAAGG
HS2 core + 150bp F	GCCAGAAGACCTGGTCAAAA
HS2 core +150bp R	CCCACACCTTTCTCTGAACA
Mouse LCR CND F	ACATGGTGCTTTTGGGATATAG
Mouse LCR CND R	CATGTGTGGGATGCCTTACTA
Human LCR HS2 F	CGCCTTCTGGTTCTGTGAA
Human LCR HS2 R	GAGAACATCTGGGCACACAC
Human HS2-3 linker F	CTATTTGCTAACAGACAATAGAGTAG
Human HS2-3 linker R	GTTACATATGCAGAAAGCCACAAATC
Human LCR CND F	CCTTGGTCAAGCTGCAACTT
Human LCR CND F	AAGACGGAGCCAATGGGTTA

DNA/RNA FISH Probes

3'HS2 RNA F	GGACCCTGCCTTGCTGTG
3'HS2 RNA R	TCTGTTGCTTCTAGGTATGAGTCT
β globin Probe +ve strand	GACGCGGCCGCCAGCGTATGCAATCGTCACT
β globin Probe - ve strand	CGACCGCGGGTTAGTGCCTGCTGGAAAGC