

SUPPLEMENTARY TABLE**Supplementary Table S1: Information of the primers used**

RT-qPCR eRNA primers	
<i>NCAM2</i> Forward	ATC CTT CCG GTT GCA GAC AC
<i>NCAM2</i> Reverse	AGT GGC ACT CGC CAG TAT TA
<i>FTO</i> Forward	AGG GAA CCA GAA CAC AAC CAA T
<i>FTO</i> Reverse	AAA CCC CAG CCA ATG AAA ATG G
<i>MARC1</i> Forward	GAG CCA CGG AAG GTT TGT GA
<i>MARC1</i> Reverse	TCC TCA TTC CGA CTG TCA CG
<i>LUZP2</i> Forward	TCT GGA AAG CAC AGC ACG TC
<i>LUZP2</i> Reverse	GAT TGT TCT CTT GCG GTG CAG
RT-qPCR mRNA primers	
<i>NCAM2</i> Forward	TGA GCC TCC TCC TCT CCT TC
<i>NCAM2</i> Reverse	CAC CAA TCG CTG TAC ATG TG
<i>FTO</i> Forward	TAG CTG TGA AGG CCC TGA AGA
<i>FTO</i> Reverse	GTT GTG AAC CGG CCA AAA CA
<i>MARC1</i> Forward	AGC AGA CTT GTT CCG ACC CA
<i>MARC1</i> Reverse	TCC CAA GAA TCC TCT GCA TAG AC
<i>LUZP2</i> Forward	AGC ACC AGA CAG GAC TAT GAA GA
<i>LUZP2</i> Reverse	TTT TGG CAG ACT GCT CAT CGT TT
3C Assay Primers	
<i>MARC1</i> Promoter Forward 1	GTG CCT GCA GGA CCA AGT GAC
<i>MARC1</i> Control Forward 2	TCG GCA GAC TGC GGA AAG G
<i>MARC1</i> Enhancer Forward 3	GCT GGG CAG GCT GTT CAC TG
<i>MARC1</i> Promoter Reverse 1	CAG AGT TCT CCC GGC GGC
<i>LUZP2</i> Promoter Forward 1	GCC CAA GGG GCT AAT ATT CAC T
<i>LUZP2</i> Control Forward 2	TCT CAA AGG CAT GAC TTT CAG TCC
<i>LUZP2</i> Enhancer Forward 3	GTG GGA AAG CCA AAT ATG TGC TCT C
<i>LUZP2</i> Promoter Reverse 1	CGG GGG CAA GCT CTT TAC AG
<i>NCAM2</i> Promoter Forward 1	CTA CTC CGG AAC TCA TAC CCT TTG C
<i>NCAM2</i> Control Forward 2	CCC TCA CTG TTC TAC TAT GCT G
<i>NCAM2</i> Enhancer Forward 3	GTG AGC CAC TGC GCC CAG
<i>NCAM2</i> Promoter Reverse 1	AAT TCT CAT TCA GTG ACA CAT CTC TG
AR ChIP primers	
<i>NCAM2</i> Forward	TC CTT CCG GTT GCA GAC AC
<i>NCAM2</i> Reverse	GT GGC ACT CGC CAG TAT T
<i>FTO</i> Forward	GG GAA CCA GAA CAC AAC CA
<i>FTO</i> Reverse	CCC CAG CCA ATG AAA ATG G
<i>MARC1</i> Forward	GAG CCA CGG AAG GTT TGT G
<i>MARC1</i> Reverse	CC TCA TTC CGA CTG TCA CG
<i>LUZP2</i> Forward	CT GGA AAG CAC AGC ACG TC
<i>LUZP2</i> Reverse	T TGT TCT CTT GCG GTG CAG