

Suppl Table S3 Primer sequences for cloing or RT-PCR

Target Construct	FwdSeq (5'----->3')	RevSeq (5'----->3')
MEG3 Reporter (MEG3cDNA, Fig.1A)	TATGGTACCAGCCCCTAGCGCAGACGG	ATCTCGAGGAGAGCACAGTGGGGTGCG
MEG3 Reporter(β -globin-Opt-In1, Fig.1A)	CAGCAGGTAAGTATCAAGGTTACAAGACAG	AAAAGGGAAAATAGACCAATAGGC
ANCR Reporter (flanking primers,(Fig.1A)	TTAGGCGGACACAGATGATGAACA	CCGAGAGAAAAGACAAGAGACCCA
ANCR Reporter (Gene primers, Fig.1A)	TATGGTACCCCCGCCCCGCGCCGCTCTCTGGTTTG	CGCGGATCCAACCTGCCAGGCTTCTCCACCAGTCG
ANCR Detection (Fig. 1C)	TGCAGCTGCCTCAGTTCTTA	AGAGAGACCCTGGGGTTGTT
Truncation (Fig.2B)	TATGGTACCAGCCCCTAGCGCAGACGG	CGCTCGAGCAGGAAGAAGACTTGGGTC
Truncation (Fig.2C)	TATGGTACCAGCCCCTAGCGCAGACGG	CCCTCGAGTTCCACGGAGTAGAGCGAGT
Truncation (Fig.2D)	TATGGTACCAGCCCCTAGCGCAGACGG	GCCCTCGAGCCTGGAGTGCTGTTGGAGA
Truncation (Fig.2E)	TATGGTACCAGCCCCTAGCGCAGACGG	GCCCTCGAGCTATGCCAGATCCTGCCTGA
Truncation (Fig.2F)	GCGGTACCAGGAGGTGATCAGCAAATG	ATCTCGAGGAGAGCACAGTGGGGTGCG
Truncation (Fig.2G)	GCGGTACCAGGAGGTGATCAGCAAATG	CGCTCGAGCAGGAAGAAGACTTGGGTC
Deletion (Fig.2H, 1-797nt)	TATGGTACCAGCCCCTAGCGCAGACGG	CGAGAGGCCCGCCTATGCCAGATCCTGCCTGAG
Deletion (Fig.2H, 1154-1566nt)	GATCTGGCATAGGCGGGCCTCTCGTCTCCTTC	ATCTCGAGGAGAGCACAGTGGGGTGCG
Deletion (Fig.2I, 1-797nt)	TATGGTACCAGCCCCTAGCGCAGACGG	GACAAGGGCTGCTATGCCAGATCCTGCCTGAG
Deletion (Fig.2I, 904-1566nt)	ATCTGGCATAGCAGCCCTTGTCCACGGGCTC	ATCTCGAGGAGAGCACAGTGGGGTGCG
5'NRE-ANCR Overlap (Fig.3A, NRE)	GCGGTACCAGGAGGTGATCAGCAAATG	GGCGCGGGGCGGGCAGGAAGAAGACTTGGGTC

5'NRE-ANCR Overlap (Fig.3A, ANCR)	GTCTTCTTCCTGCCCCGCCCCGCGCCGCCTCTCTG	CTCGGTACCAACCTGCCAGGCTTCTCCAC
5'NRE-ANCR Expression (Fig.3B, ANCR)	TAATACGACTCACTATAGG	AGAGAGACCCTGGGGTTGTT
5'NRE- β -globin overlap (Fig.3A, NRE)	GCGGTACCAGGAGGTGATCAGCAAATG	GAGTCAGATGCACCAGGAAGAAGACTTGGGTCC
5'NRE- β -globin Overlap (Fig.3A, β -globin)	GTCTTCTTCCTGGTGCATCTGACTCCTGAGGAG	CGGTCTAGATTAGTGATACTTGTGGGCCA
5'NRE- β -globin Expression (Fig.3B, β -globin)	TAATACGACTCACTATAGG	CACACAGACCAGCACGTTG
Primers for RT-PCR of mRNAs		
RAVER1	GTCTGTGGGAGTCGGACATT	TCATGGAGTGCTGGTTTCTG
ARG1	CCCTTTGCTGACATCCCTAA	ATTGCCAAACTGTGGTCTCC
ALB	TGGCACAATGAAGTGGGTAA	CTGAGCAAAGGCAATCAACA
RPS7	GTGGGAAGCATGTCGTCTTT	CCACATTGTTCTGCTGTGCT
CCT2	GTTGGAGAGAAGCCACGAAG	GTTGCCAGAGCCTTTCAGTC
hnRNPH3	GGAAGAGGTATGGGAGGACA	TCGTATTGGATTTAGTGGTGAGAA
STRBP	AGAGCCCACGCTAACTTTGA	GGGGACTCTGTTGCACAAAT
SNRPA	TTGGGACAAAGGATTTGGAG	GGCTCCGTGATACCAGGATA
hnRNPUL1	CTTTCCAGCCGAGTTACAGC	GTTCCACTGCTGGGCATACT
PPP1CA	CCAAGTTCCTCCACAAGCAC	GGTCTCGTCCCACTCATCA
ZFR	CTCCCAAACCACCACAGATT	TTCTTCTCGTCTTCGCCAGT

CCT5	AACCTGGCGTGTTGTTTAGG	GGGAAACAAGTGGGTTCTGA
HNRNPLL	AGGAGGGAGAGGCTGAATGT	ACGACGGGTGAAACAGAAAC
YBX3	ACGTGGGACAGACCTTTGAC	AGAAACCTAGCGGTTGCTGA
hnRNPA1	ATACAACCTGCTTGGGTGGA	TGCATAGGATGTGCCAACAA
hnRNPD	GATCCTAAAAGGGCCAAAGC	CCCATAACCACTCTGCTGGT
TROVE2	TGCAGCCACTGAATGAGAAG	TTGTGCTTATGTCTGGAGCAC
SSB	ATCCAAGGCAGAACTCATGG	TTGCATCTTTGGCTTTACCC
hnRNPL	AGAGTCCCATCTGAGCAGGA	GTACATGGGCAGCACAAATG
hnRNPA2/B1	GGCTACGGAGGTGGTTATGA	CCCATGGCAAATAGGAAGAA
hnRNPU	TGGGTAGTGGAGGGGGTAAG	TTTTGTGGGAGAAGGGCATA
ADAR	TTCCCTCCAACTGCTGACT	GCCTCGCTCTCTTCCTACAA
SFPQ	TGCCCTTTCTGTTCGTAATCTT	TCCCTTTGCTGTTTTTCCAT
SF3B3	ATCTCCACCAACACCCTACG	ACCCACCAGCACATACCAGT
SMC1A	CCTGCTCTCTCCTGTCGTG	ATTCCTACCCGTCCCTCAAG
GAPDH	CTGAGTACGTCGTGGAGTCC	AGGCAGGGATGATGTTCTGG
Primers for RT-PCR of LncRNAs		
PVT1 detection	AGATCCTGCCCTGTTTGCTT	CCCCAAGCTGGGTCTTCATC

PVT1-Spliced	CTTCTGGAAGCCTTGCCTGA	TCGTAATGGGTTGAAGCTGTCC
PVT1-Unspliced	actttccaattgctcctgtga	TCGTAATGGGTTGAAGCTGTCC
TUG1 detection	GTACCTCCACTCAGCACAGT	CTGGAGTGGAGGGCTGTAA
TuG1 ends exons	AGGATGCTCCATCCAAAGTG	GCCCCTACTCTTGCTTCACTAC
TUG1-Spliced	ACCACACCCCACAATCTCAA	GCCCCTACTCTTGCTTCACTAC
TUG1-Unspliced	tgcatacctaggcaaaaacc	GCCCCTACTCTTGCTTCACTAC
PSMA3-AS1 detection	ACTAAAGGCAACTGGCATGGA	AGCTGCAGGCGTAATATTGGA
PSMA3-AS1 ends exons	AGCTCCATCGCATTTTATGTTT	GGAAACTTCGATTCTGGTCTTT
PSMA3-AS1-Spliced	GCACCAACAAGAACCTGCTTTA	GGAAACTTCGATTCTGGTCTTT
PSMA3-AS1-Unspliced	cgatatcacggcaggtcatctc	GGAAACTTCGATTCTGGTCTTT
MEG3 detection	TTGACAGGTCAGTCCCTTCC	TTCCACGGAGTAGAGCGAGT
MEG3 ends exons	AGCCCCTAGCGCAGACGGCGGAGAGCAGAGAGGGAGCGCGCCT	GTAGGTGAAGGAGCCCACTT
MEG3-Spliced	GGGAAGGGACCTCGAATGTG	GGCGGGTCTCTACTCAAGG
MEG3-Unspliced	gaagtgaggggcactaggt	GGCGGGTCTCTACTCAAGG