

RT-PCR Primer Sets

RT-PCR Set	Primer 1	Primer 2	Organism	Reference	Temperature / Size	Expression
Activin b	GTCAATTTGACGTGGTTTCC	GCAAGAATGTGCTGATCAAC	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486	Annealing temp = 50 Size = 426	Expressed in ES cells / primitive ectoderm. Disappears by 3rd differentiation.
ATM (NM_007499)*	ATCGCAGAGCGCCTCCATGTC	GAAGAACATGATCTGTGGGTG	mouse	Heyer <i>et al.</i> , G&D 2000 14:2072	443 bp Primers span 3 introns(2.2 kb)	Upregulated following DNA damage
AFP	GCTCACACCAAAGCGTCAAC	CCTGTGAACTCTGGTATCAG	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486	Annealing temp = 50 Size = 1400	Exp yolk sac E8.5 / visceral endoderm. Not expressed in ES cells.
AIB1	CGTCCTCCATATAACCGAGC	TCATAGGTTCCATTCTGCCG	Human	Kurebayashi J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Annealing temp = 57 Size = 256	-
b-Actin	TGACGGGGTCACCCACACTGTGCCCATCTA	CTAGAAGCATTTCGGGTGGACGATGGAGGG	Human	Kurebayashi ,J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Size = 610	-
b-Major Globin	CTGACAGATGCTCTCTTGGG	CACAACCCAGAAACAGACA	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486	Annealing temp = 55 Size = 1296;	Exp Fetal liver E14. Exp by D4 ES differentiation.
bH1	AGTCCCATGGAGTCAAAGA	CTCAAGGAGACCTTTGCTCA	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486	Annealing temp = 55 Size = 1053	Exp yolk sac E8.5. Exp by D4 ES differentiation.
Brachyury	TCCAGGTGCTATATATTGCC	TGCTGCCTGTGAGTCATAAC	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486: Heyer <i>et al.</i> , G&D 2000 14:2072	Annealing temp = 55 Size = >>947	Gastrulation marker. Exp embryo E8.5/mesoderm. Exp by D4 ES differentiation, then declines at D8.
c-kit	TGTCTCTCCAGTTTCCCTGC	TTCAGGGACTCATGGGCTCA	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486	Annealing temp = 55 Size = 765	Exp bone marrow
CBP	TCAGTCAACATCTCCTTCGC	TGTTGAACATGAGCCAGACG	Human	Kurebayashi J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Annealing temp = 58 Size = 272	-
CBP**	CAAGCACTGAATCCACAAGCACAAAA	TATTCTTGATATCTGTAGGAAAAGC	Mouse	MC designed in lab	-	-
Collagen IV	CAAGCATAGTGGTCCGAGTC	AGGCAGGTCAAGTTCTAGCG	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486	Annealing temp = 55 Size = 463	Exp PYS cell line / primitive endoderm. Low levels in undifferentiated ES cells with inc at 24

						hrs, then high levels at 4 days post differentiation.
ER-a	agacatgagagctccaacc	gccaggcacattctagaagg	Human	Kurebayashi J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Annealing temp = 55 Size = 299	-
ER-b	TCACATCTGTATGCGGAACC	CGTAACACTTCCGAAGTCGG	Human	Kurebayashi J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Annealing temp = 58 Size = 346	-
GAPDH (NM_008084)**	TGATGACATCAAGAAGGTGGTGAAG	TCCTTGGAGGCCATGTAGGCCAT	Mouse	Heyer <i>et al.</i> , G&D 2000 14:2072	229 bp	-
GAPDH (NM_008084)**	CCATGACAACCTTGGCATTG	CCTGCTTCACCACCTTCTTG	Mouse	MC designed in our lab	~300 bp	-
GAPDH	CCAATGTGTCCGTCGTGGATCT	GTTGAAGTCGCAGGAGACAACC	Mouse	Polesskaya <i>et al.</i> , EMBO J 2001 Dec 3;20(23):6816-25	-	-
GATA-1	ATGCCTGTAATCCCAGCACT	TCATGGTGGTAGCTGGTAGC	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486	Annealing temp = 55 Size = 581+smear	Exp Fetal liver E13. Exp by D5 ES differentiation.
GATA-3	CCTTAAAACTCTTGGCGTCC	AGACACATGTCATCCCTGAG	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486	Annealing temp = 55 Size = 532	Exp fetal thymus E18. Occasionally detected in undifferentiated ES. Exp by D4 differentiating.
HPRT	CACAGGACTAGAACACCTGC	GCTGGTGAAAAGGACCTCT	Mouse	Keller <i>et al.</i> , Jan 1993 MCB 13(1) p473-486	Annealing temp = 50 Size = ~1100	Housekeeping gene
KU70 (NM_010247)**	CTTCATTTTTCTGGTTGATG	TGGTGATGATGCCCTGTAG	Mouse	MC designed in our lab	656 bp P rimers span 2 introns.	-
KU80/86**	ATTCCTTTTTCTAAAGTGGATGAG	AATCAGATCATCAATAGCGCT	Mouse	MC designed in our lab	415 bp Primers span 4 introns.	-
MCK	CACCATGCCGT TCGGCAACA	CACCATGCCGTTT GGCAACA	Mouse	Polesskaya <i>et al.</i> , EMBO J 2001 Dec 3;20(23):6816-25	-	-
MDM2 C- terminus	GTAGAATTTGAAGTTGAATCT	CTAGGGGAAATAAGTTAGCAC	Human	Kawai H <i>et al.</i> , JBC Vol. 276(49):45928-45932	-	-
N-CoR	GCTGATGAGGATGTGGATGG	TTGGACTCTTGGATGTGCC	Human	Kurebayashi J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Annealing temp = 58 Size = 349	-

p300 bromodomain (U10877)	AGCCAAAGAAAAAGATTTTCA	ACATCACTGGGTCAATTTCTT	Human	Kawai H <i>et al.</i> , JBC Vol. 276(49):45928-45932	-	-
p300**	GTGGTGATATTAATCAGCTTCAGA	CCCTGCTGAAGAGGCTCAGTCAGTA	Mouse	MC designed in lab	-	-
p53 (NM_011640)* MGSC	GGATAGCAAAGAGCACAGAGC exon 1 or just upstream according to blast, 472bp from 2nd primer. One bp discrepancy w/ MGSC seq: GGATAGCAAAGAGCACAGAGC	CCAGTCTTCGGACAAGCGTGAC at 3' end of exon 1 according to blast of MGSC. One bp discrepancy w/ MGSC seq: CCAGTCTTCGGAGAAGCGTGAC	Mouse	Heyer <i>et al.</i> , G&D 2000 14:2072	-	Upregulated following DNA damage.
p53 N-terminus	GCCACCATGGACTACAAGGAC	GCGGAGATTCTCTTCTCTGT	Human	Kawai H <i>et al.</i> , JBC Vol. 276(49):45928-45932	-	Upregulated following DNA damage.
P/CAF (Q92831)	AGAACATTGCTTCGCTCGG	TGCCTCAAGTCCAGAAGAGG	Human	Kurebayashi J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Annealing temp = 57 Size = 345	-
SMRT	TGTGGTTCATAAGCCATCTGC	CGGAATCTTCCCCTCTCCC	Human	Kurebayashi J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Annealing temp = 58 Size = 179	-
SRC-1	GCTCGTTCATCCACATTGCC	ACTACTTGTCATGCCAACGG	Human	Kurebayashi J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Annealing temp = 57 Size = 372	-
TIF2	TAATGCACAGATGCTGGCC	TCTGTGTATGTGCCATTCGG	Human	Kurebayashi J <i>et al.</i> , Clin Canc Res 6:512-518: 2000	Annealing temp = 58 Size = 314	-
TRF2 (AF003000)	GCCCAAAGCATCCAAAGAC	ACTCCATCCTTCACCCCTC	Mouse	MC designed in our lab	173 bp Spans 2 introns.	-

*These have not yet worked in Dent lab.

**This has worked in Dent lab.