

ChIP-qPCR primers

Gene associated	Approx position (relative to TSS in Kb)	Forward sequence	Reverse sequence
actb	TSS	CCCAACACACCTAGCAAAATTAGAACCAC	CCTGGATTGAATGGACAGAGACTCACT
adamts9	TSS	CCTTTTCTGGATGCCTTAACAC	CCTTCACAGTGTTCCTCTCCT
bgn	+0.5	CCCAGTTGCTAAGCTCACCTAT	CCATGAAGGGATAGGACTATTGG
col10a1	+5.1	AGGGTTACCAGGACAAAAGGT	AGGCACTCCTTTAGCTCTACA
col11a1	+3.5	TGCCTCAGAAGTCTGTTAGA	AGAGCATGCCTGCTGTTTTAAT
col11a2	+19	CATTACCTTCCCTTGTTCG	GCAGTCTCTAGTGGGGAGAAGA
col12a1	-2.2	TGTTTTCTTAACCTCCCTTGGAA	ACAGGAGTAAGACCCACAGGAA
col13a1	+6.2	CATGATCAATAACAAGCCTGGA	CCTCCTCTGCATAACCCTTAAA
col14a1	+2.7	GGTATCCTCTCCTTCTGCTTCA	AAACGACTCCAGGAACACTGAC
col15a1	+79	CCAGGGCTAAAAGGAGAACAG	GGGAATCCTTTAAACGCTCAATG
col16a1	+10	CACGGGTAAAGTACCCTAACCAA	AAAGACCCAGGTACCCTTAGAA
col17a1	+41	ATGAGAGGTCTCCACACTGAT	CCCAGGGTCTGACTACAGAAAC
col18a1	+33	TCCATGCTTAATCCCTTCTA	CCGGTAAGTACTGCTGCTCCTT
col19a1	+60	CGTACCTGAATACCTGGCTCTC	GAAATGGTGTGATAGGGGTTTTC
col1a1	TSS	GCTCTCCATCAAGATGGTATAAAAG	GACCCCTAGACATGTAGACTCTTTGC
col1a1	+1.5	GGAAAGATACGGTACGGTTCTG	AGTTTTGGTGATACCTGGGAAAG
col1a1	+3.2	ACTTTGCTTCCAGATGTCCTA	GACATCATTGGCCTTTCTCTTC
col1a1	+6.2	AGGTCCCAAGGGTAACAGTGT	CTCGCAAGTGTATGTTTCTCCA
col1a1	+8.9	ATTAACGCGAAAAGGGAGGACTT	GCCAGAGTATTCCAGCAAGTGT
col1a1	+11	ACTTCTGACCACCAATGTTCT	ATACATGTCTACCCCATCCTC
col1a1	+14	ACCTGGAACCTTGATCTCCTT	AGGCAGGAAGCTGAAGTCATAA
col1a1	+15.5	GGTCTCTTGCCTTGAAGACCTA	GACTTAAATTTGGGAGCAATG
col1a2	+4.6	TGGTCCCAAGATTGCTCTAA	GGGACCATCAACACCATCTCT
col20a1	+14	GACTTTCAGGCTTGCAGTAAT	CCCTGTGAGGGAACAGGATAG
col22a1	+135	CAGTGTCCAGGGTGTGTACT	ACCCTCTAACATTGGCTGACAT
col23a1	+278	CAAGGTCAGTGTGCTGAACTC	AGGATGAAGTTCGGGGTACATA
col24a1	+180	TGTCATCCACAGGGTGATAAAG	CCAGTGAGTCAAGTCTGAAAAG
col25a1	+382	AGCACAGCTTCTAGCAATGGT	CCTTGAATAATACCTGTTCTCCA
col27a1	+85	GTCAAGGGAGAAGCATAATGGA	GCCAACAGTCCCTGCTATAATC
col28a1	+105	TCTTACAGACACTGTTCCCTGGT	GGCCTCTGGAAGAAGGTAATC
col2a1	+6.5	CACCCCTTGACAGGAAGAGAAA	GGTGAGCAGACAGCAACAATA
col3a1	+31	AAATCACCCCTCCAACTGGTAA	CTTACATCCCTCCAGGTTCCAC
col4a1	+70	GGTGACATCACCATCACCATAA	CCCAGATATGGCACTACCTGTT
col4a2	+113	TATGAAGGAGTTGTCCCTTGT	TGGTCACATGTGCATGAATCTA
col4a3	+82	TCCAGGATGTCCAGGTAAGAT	CCATGCTCCTATGCCTGAGTAT
col4a4	+75	CAAAACAAGCACAGAGAGGCTTA	CTCAGTGAGTGTGTGCTGTTCA
col4a5	+176	GGTATGAATGGTCTCCTGGTA	ATGAGCACCTGTTTCTTCTTC
col4a6	+290	GCATTTGTGAGGTATGGACAAA	AAACACTTGGCATTCTGGAAAG
col5a1	+1.1	GCTCTCCTTAGCTTAGCTGGTG	GCCAGAAAAGCAGGAGAAGAATA
col5a2	+81	GCCATGGGCTGACATACTTATT	TATGTTGCTTTCCTTGTCTCA
col5a3	+27	CCCACGTCACCCTAGAACATA	TGACCAAGGGTCTTGTCTATC
col6a1	+9	ATGGAGAAGCAAAATGGAGCTA	GAGCACTACGTGGAGTCAATTTG
col6a2	-10	CCGTAAGTGGCAGAGTTTCATT	AGAAGCACAAAGGCTTTTCCTGA
col6a3	+18	GAACCTACCCTTCGACCTCTGA	TGATGTGCTACTTCTGGCTCT
col6a6	+29	AAAAATGGAAGGACAGCAGTGT	CAAAGGGCCCTAAGGTAAGGACT
col7a1	+24	CTGGACTCAAAGGAGACAAGGT	TCCCTAGAGTTCACCCAGGAATA
col8a1	+3.4	GGGACCTACTTCACCAAGAAA	AGAAGGTGGAGTTGTAGGACCA
col8a2	+24	GAGGAGACCAAGGGCCTAAT	CCCAAGTCACTTTCTGTCCCTA
col9a1	+53	ATCCATCAGCTCATTCAAGGAT	ACCTGTTCAACCTTCCACTAAC
col9a2	+1.5	ATGGCATCGACGTGAGTATCTA	GGGGTTTTCTCTGAAACAAACAG
col9a3	+3.5	GAGTCTGTGGCTCATTCTTCT	TAACCTTGGGACAGCAGCTATT
dcn	-103	TCTTTACCAGGGAGCAGAGAAC	ATCCTAGGAGCTTTGTGAGCAC
dmrt3	+0.4	ACAAGCGCTACTGTCGTTCAA	GCTCGATGATCAGGACTCACTT
emid2	+123	AAGCAAACCTCTGTCTCCACTC	CTATGGCATCTGAGTCCACAGT
fmod	+4.4	CGACCTTTGAGCCTCTTTCTAA	AGTGGGAGGGAAATTAATGCT
gpc1	-16.8	TGAGGAGCTTGTGTCTCCT	GCTGAGAGCCTTTAGATGTTCA
hoxa9	TSS	ATGTTGACTGGCGATTTTCC	AGAGAACTGCCAACCCCTCAA
hoxc8	+0.9	CTGGGAGATTGAAAGGCTTG	ATCTCCCCAAGTTTGGCTTT
meg3	TSS	AAACAACGCTCTCCTTTCTAAG	AAATAACCCCAACTGGTGATTG
mmp14	+1.7	TCTGCTTAAGTGGGTATGGT	CTCTCCAGCTCAACATCAAGTCT
pcolce	+0.16	TGTGGAAGCCATCTGAAAGATA	GCTGCCCTAACCTCCTTTCT
postn	-2.5	CATCCGCTTATGTTTTGTGTG	CATTACACTGCCACGCTTACTC
sema5b	+132	AAACCTCAAAGCCAGGACACA	ACTTGGTCCCGAGTTGATGGAA
zic3	-2.9	CGCAAGTCTTTCCAGAGTC	TTGGTATGGGTGGGAGTTTC

Real-time PCR primers

Gene Name	Forward primer	Reverse primer
ActB	CTCCCCGGGCTGTATTCC	CCTCTCTTGTCTGGGCCTC
Bglap1 (osteocalcin)	AGGAGGGCAATAAGGTAGTGAAC	ACAAGCAGGGTTAAGCTCACA
Col1a1	CGGCTCCTGCTCCTCTTAG	GACCCCTAGGCCATTGTGTATG
Col1a2	GCAGGTTACCTACTCTGTCTCCT	AGGCGAGATGGCTTATTTGTT
Dcn	GCTAGACCTGCAAAACAACAAA	GTTTGAATGCCTCTGGACTGAT
Ibsp	AAATGGAGACGGCGATAGTTC	GTCTTCATTCCCTCAGAATCTT
Prdm5	TCAGAAAAGCGGCTTATAACTG	CCACTTGATCGAGCCTCTTGAAG
Rpl0	TTTATTGTGGGAGCAGAC	CAGCAGTTTCTCCAGAGC
Rrn18s	TTGACGGAAGGGCACCACCAG	GCACCACCACCCAGGAATCG
Runx2	CGGGAATGATGAGAAGTACTCC	CCACAATCTCAGATCGTTGAA
Sp7 (Osterix)	CTACCAGCTCCCTTCTCAAG	GGGTGGGTAGTCAATTTGCATAG
Ubc	AGCCAGTGTACCACCAAG	ACCCAAGAACAAAGCACAAGG