**Supplemental Table 3: Primers for ChIP-qPCR**

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| --- | --- | --- |
| 1782 | Acvr2a\_+2kb\_F | GCAAGCTAAACAATGGTGTCTG |
| 1783 | Acvr2a\_+2kb\_R | AGACCTGAGCAGGAGTTTACCA |
| 1950 | AFM\_+42\_F | GAAAGTCACATGATGGTCCTGA |
| 1951 | AFM\_+42\_R | TGCAAAGTTCTAAAGAGGCAAA |
| 1952 | AFM\_p\_F | ACCTAGAAATTTGCACCAGGAC |
| 1953 | AFM\_p\_R | TCATGCATTTAAAGGAGCAATG |
| 2517 | Afp\_-5kb\_F | TTAGCATCTTTTTGATGGCAGA |
| 2518 | Afp\_-5kb\_R | TCAAAGCGCAGTCCTAAGTACA |
| 1415 | Alb\_+5Kb\_F | TGCAGTCCTAGTCAGGGTGA |
| 1416 | Alb\_+5Kb\_R | CAGCTGGCTTGATGGCTAAA |
| 1519 | Alb\_eG\_F | GGGACGAGATGGTACTTTGTG |
| 1520 | Alb\_eG\_R | GATCAGTCCAAACTTCTTTCTG |
| 1784 | Arg1\_+4kb\_F | CAACACTGGTAGATGGTCAGGA |
| 1785 | Arg1\_+4kb\_R | TTCTCCTCAAGAGCCCTAAGTG |
| 1786 | Arg1\_-3kb\_F | GTTCTCCTTGCTGTATGGGTTC |
| 1787 | Arg1\_-3kb\_R | ATCTATCAGCCCCAAAAGGAAT |
| 1788 | Arg1\_p\_F | ATTCAAAGCCAAACTCACCTGT |
| 1789 | Arg1\_p\_R | AAAGATGTGCCCTCTGTCTTTT |
| 1790 | Bmp1\_+4kb\_F | GCAAGAGAGTTCAGGATGCTTT |
| 1791 | Bmp1\_+4kb\_R | GTGCTTCCTGCCTGGTTTATAG |
| 1794 | Cdh16\_+13kb\_F | AACTCGGTTTAGCTTCTGAACG |
| 1795 | Cdh16\_+13kb\_R | GAGGAACTCCTCCATGTGAGAC |
| 1792 | Cdh16\_+16kb\_F | CTCCTTCAGAAGTGGAGGAGTG |
| 1793 | Cdh16\_+16kb\_R | AAGCTCCAATCCCTGCTTTTAG |
| 1391 | CDX2\_+3Kb\_F | CCTGGGTTAGGGAGGTTTGT |
| 1392 | CDX2\_+3Kb\_R | TCTGTGTACACCACCCGGTA |
| 1393 | CDX2\_+7Kb\_F | CTGTTTGGACAGTGGAGCAA |
| 1394 | CDX2\_+7Kb\_R | ACAATGCCGACTTTTGAACC |
| 2291 | Cdx2\_p\_F | CTCCCCAACTTTTAAAATGCAA |
| 2292 | Cdx2\_p\_R | GGCCTTACGTGATTAACGAGTG |
| 1796 | Fapb2\_-23kb\_F | GTTTTGATGCTGTCTTGGTTTG |
| 1797 | Fapb2\_-23kb\_R | TCTGGGGCTTAGACTTCTTTTG |
| 1798 | Fapb2\_-26kb\_F | CACTCATCTCATTGGGATTCAA |
| 1799 | Fapb2\_-26kb\_R | AGGCTATAGAGGGAGCTTTGCT |
| 1800 | Fga\_-23kb\_F | GGGTTTCCTGGACCTTTGTAAC |
| 1801 | Fga\_-23kb\_R | ACTAACCGCCACAGCTACAAGT |
| 1746 | FoxA2\_+5kb\_F | ATCTCCCAGTAACTCAGGTGGA |
| 1747 | FoxA2\_+5kb\_R | TCTTAGCCCAGCTAAAGTCCAG |
| 1730 | FoxA2\_+7kb\_F | GAGGCATCCCTGCATTTATTT |
| 1731 | FoxA2\_+7kb\_R | TGAAATCTTTGCTTTGTGTGCT |
| 1728 | FoxA2\_p\_F | CCTGGTCGTCAGTTACCTCAGT |
| 1729 | FoxA2\_p\_R | GCACCTTGGATTTAACTGAAAA |
| 1726 | Gata4\_+13kb\_F | GAAAACATTGCAAAGTGGTGAA |
| 1727 | Gata4\_+13kb\_R | CTGATCGATAGCAACTGGTGAG |
| 1748 | Gata4\_+29kb\_F | ACGTGCTGACCTACCTCATTTT |
| 1749 | Gata4\_+29kb\_R | TCAACAGGTCCATACTGTGAGG |
| 1724 | Gata4\_+40kb\_F | TCCCATCACACTGTAATTGTCC |
| 1725 | Gata4\_+40kb\_R | CTAGGCAGGGATTAAGCAGCTA |
| 1802 | Gata6\_+27\_F | TGGGAGCTACTCTAAGCAGGAC |
| 1803 | Gata6\_+27\_R | GTACATCCCTGAAACCATCTCC |
| 1694 | Gata6\_-1.7kp\_F | GTCCGAAGCTTTAATGAATTGC |
| 1695 | Gata6\_-1.7kp\_R | GACTAGCAGCTGGAACAGGATT |
| 1696 | Gata6\_-4.5kb\_F | AGGGGCAAATTTAAATGGAACT |
| 1697 | Gata6\_-4.5kb\_R | CTCTCGAATCCCGATAAAGAAA |
| 1692 | Gata6\_p\_F | GCAGCTTGTAGAGAGCAGTTCC |
| 1693 | Gata6\_p\_R | ACAAAGGAGGAAACAACCGAAC |
| 1750 | GC\_-11kb\_F | GTTGTTTTCAGGGATGGGTAGA |
| 1751 | GC\_-11kb\_R | AAAGTATTGCTGCAGGTGGATT |
| 1732 | GC\_-9kb\_F | AAGGCTCAAAGTCCTAGTGCAA |
| 1733 | GC\_-9kb\_R | TGTGTGTGGGTCTTAAGTCTGG |
| 1752 | Hex\_+11kb\_F | AGTTTTTGGCTAAGGGGAGAAG |
| 1753 | Hex\_+11kb\_R | TATCTTGGTCCCTCAATCCACT |
| 1743 | Hex\_+8kb\_F | CCCTGGCAATCTGTAACTTTGT |
| 1742 | Hex\_+8kb\_F | CCTTCAAGGTTGCTTTGAATCT |
| 2525 | Hhex\_p\_F | TTCTACATCGACGACATCTTGG |
| 2526 | Hhex\_p\_R | AGGCTGGTGAAGGAGGAGTT |
| 1686 | Hnf4a\_-5kb\_F | TGACTAGAGGTCTGTCGAGTGC |
| 1687 | Hnf4a\_-5kb\_R | CCATGAAGCGTGTAACAGAAGA |
| 1684 | Hnf4a\_-6kb\_F | CTTTCCCAGCTTGAAAATGAAC |
| 1685 | Hnf4a\_-6kb\_R | CTCCAGGGCCTGAGTATATTTG |
| 1688 | Hnf4a\_p\_F | GACTATTAATGAGCGGGAGGTG |
| 1689 | Hnf4a\_p\_R | AACTGTCCTCTGGGAGACTCAG |
| 1804 | Hpxn\_p\_F | GCAGATGACATCACAGCAAATAA |
| 1805 | Hpxn\_p\_R | CACCACCTCTTGTCAGTATTCG |
| 1954 | Igf1\_-1.2kb\_F | GTGCTGTCATCACATGATTCCT |
| 1955 | Igf1\_-1.2kb\_R | GTGGTGATTGTCCTCAAATGAA |
| 1956 | Igf1\_p\_F | TAACTTTGCCAGAAGAGGGAGA |
| 1957 | Igf1\_p\_R | GCAAGCAGAAGAGGGATTTAGA |
| 1958 | Igfbp1\_-3kb\_F | GGAATCAAAGAGGAGTTTGGTG |
| 1959 | Igfbp1\_-3kb\_R | GTCCTTCCTCCTTTCCAAAGAT |
| 1960 | Igfbp1\_p\_F | TAGGTCTTTGATTTCCCCTGAA |
| 1961 | Igfbp1\_p\_R | GGGTAAAGGGATCAGGTTTTCT |
| 1808 | Krt20\_-11kb\_F | TTCACCCCATCTTTTTGTCTCT |
| 1809 | Krt20\_-11kb\_R | ATGTTTGCAATGTTGCTACAGG |
| 1806 | Krt4\_+2kb\_F | ACACAGCTCTTGCTTCACTCAG |
| 1807 | Krt4\_+2kb\_R | GGTTGCTACCACTAGGTTCTGG |
| 1754 | Lhx1\_+10kb\_F | CTCTCCTGTCTGCTCCTGACTT |
| 1755 | Lhx1\_+10kb\_R | AGGAAGAAGATTCCTGGGGTAG |
| 1738 | Lhx1\_+13kb\_F | TCAAGTGTTATCGGCTACATGC |
| 1739 | Lhx1\_+13kb\_R | GTCAGGGAGGTGTGAGAAAGAC |
| 1736 | Nanog\_-14kb\_F | GCCTACATGTACCTGTGGTCAA |
| 1737 | Nanog\_-14kb\_R | GAGTTTTGTGGGGCTTATTCAG |
| 1756 | Nanog\_-15kb\_F | GTGGAGGTCAGAGGACAAACTT |
| 1757 | Nanog\_-15kb\_R | GAGATCTGACACCCTCTTCTGG |
| 1810 | Nfia\_+46kb\_F | GGAGCAGTTGGAAGAAGAAAAG |
| 1811 | Nfia\_+46kb\_R | TGCCTGCCAAGAGTATGAACT |
| 1177 | Ngn3\_-2kb-F | TCGCCTTAGGAGCAGGTGAT |
| 1178 | Ngn3\_-2kb-R | TTGTAAAGCGGGATGCTTTG |
| 1962 | OC2\_-14kb\_F | CTACCTGTGCTGATACCGACAA |
| 1963 | Oc2\_-14kb\_R | GGACAGACTGCCTTTGATTTTC |
| 1964 | OC2\_p\_F | ACTGAATGAAGGCTGGCTACAC |
| 1965 | OC2\_p\_R | ATTGTCAGCTGCGGGATCAT |
| 1758 | Pax6\_-14kb\_F | AAAATAATTCCGTGGGAATGTG |
| 1759 | Pax6\_-14kb\_R | AAACTTAAGCCCTTTCCTTTGG |
| 1740 | Pax6\_-17kb\_F | AAAGAATGAAGGGGAGAAGGAC |
| 1741 | Pax6\_-17kb\_R | GTTCTCTTTTTGTCTGCCTGCT |
| 1682 | PDX\_+11kb\_F | TTTATGGCCCTTGTGAAGTAGG |
| 1683 | PDX\_+11kb\_R | GGGGACCTCATGTATCTGAAAA |
| 1547 | PDX\_-2kb\_F | GGAAATCCTTCCCTCAAGTTTT |
| 1548 | PDX\_-2kb\_R | GTAAATTGGCTTCCATCTCGAC |
| 1549 | PDX\_-6kb\_F | CTCTTCCTGATTCCCTGAAGTC |
| 1550 | PDX\_-6kb\_R | ACTAAGAGTGCTCTGGGCTCTG |
| 1397 | PDX\_p\_F | GGATCAGGCGACTGAGAGAG |
| 1398 | PDX\_p\_R | TTTACCCTGGAGCCATCATT |
| 1968 | Ppara\_-2.8\_F | ACACAGGATAGGAGGCTTTGAA |
| 1969 | Ppara\_-2.8\_R | GGCTCGTCTATGTTTACCTTGC |
| 1966 | Ppara\_36kb\_F | TTTGTGGGCATTTTCTACACTG |
| 1967 | Ppara\_36kb\_R | TGAGTTCAGCTAGGCAAAGGAT |
| 1970 | Ppara\_p\_F | ACAGTGAGGTGGGTGGACAG |
| 1971 | Prara\_p\_R | CTTCCTAGCGTGTGCCCTCT |
| 1744 | Ptch1\_-11kb\_F | TTGAGGACCAAAGGGGTAGATA |
| 1745 | Ptch1\_-11kb\_R | GGTTGGTCATTTCCTCTGACTC |
| 1760 | Ptch1\_-14kb\_F | CCGTAAAAACACAAACAGGACA |
| 1761 | Ptch1\_-14kb\_F | TGGAACCTGCTTTCTAGCTCTC |
| 1680 | Ptf1a\_-1.7kb\_F | TTAAACCCCAGAGTCAAGAAGC |
| 1681 | Ptf1a\_-1.7kb\_R | CCCTGTCTAAAACAAGGGTGAG |
| 1677 | Ptf1a\_-12kb\_F | GCTTGCCATTAGGGAAACATAG |
| 1676 | Ptf1a\_-12kb\_R | AGAGTCCTCATTCTCTGCCTTG |
| 1812 | Serpina1d\_+4kb\_F | AGATCATAAAGGGCAATCTTGG |
| 1813 | Serpina1d\_+4kb\_R | TCAAGTCTTGCTTCACTTCAGC |
| 1734 | Sftpb\_-10kb\_F | AGGAACACTGGACTGACAAACA |
| 1735 | Sftpb\_-10kb\_R | CTGCTGAGGAAATGCTGCTAC |
| 1762 | Sftpb\_-7kb\_F | AGCTTTTGGGGTTTGTATGAAA |
| 1763 | Sftpb\_-7kb\_R | GTGTCAAACTGGACCCTTGAGT |
| 2521 | Sftpb\_p\_F | GGACATCATCAGTGTCACCAGT |
| 2522 | Sftpb\_p\_R | CATACCAGGTTTACGTCCCATT |
| 1814 | Tcf2\_+26kb\_F | GGAAGACCTTTCTCCTTCTCGT |
| 1815 | Tcf2\_+26kb\_R | AACTAGTCAGGGCTCTGTCACC |
| 1976 | Tle1\_+2kb\_F | CCCCTAATGGACTTTGTCTCAG |
| 1977 | Tle1\_+2kb\_R | GCGCTTCGTTTATTTATTTTGC |
| 1978 | Tle1\_p\_F | CACCGCAAAGTTCTCACGAC |
| 1979 | Tle1\_p\_R | TGAAACCGCGTGTTAATGTAAG |
| 1291 | TTR\_+8kb\_F | CAGGATCTTGCCAAAGCAGT |
| 1292 | TTR\_+8kb\_R | AGAATGCTTCACGGCATCTT |
| 1206 | TTR\_p\_F | AGCGAGTGTTCCGATACTC |
| 1205 | TTR\_p\_R | ACCCCCTCCTTCCAACCCA |
| 1820 | Vegfa\_-20kb\_F | TCAAGAGGGGAAAGTTTGAAGA |
| 1821 | Vegfa\_-20kb\_R | GGCACACACACGTGTCAGACT |
| 1818 | Vegfa\_-23kb\_F | AAAGGAGAGGGGTCTAAGCAAC |
| 1819 | Vegfa\_-23kb\_R | TCGAGATGGAATGTCAGAGAGA |
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|  |  |  |
| HUMAN CHIP PRIMERS | |  |
| 2128 | Cdx2\_+7kb\_human\_R | ACAATGTCGACTTTTGAACC |
|  | cdx2\_+7kb\_F, TTF1 +2kb same as mouse primers | |