

Table S-8 PCR primers used for analysis of retinal and placode gene expression

| Gene Name | Primer Sequence | Gene Name | Primer Sequence |
|---------------|-----------------------|---------------|-------------------------------|
| Ilet1 F | GGTCCGAATGATTGACCAGT | RH (27634) F2 | GAGCGGGGTTATCGTTGTAA |
| Ilet1 R | AGGGTGGAAAGCCACAGTATG | RH (27634) R2 | GGCCAACCCAGTTAACAGAA |
| NeuroD F | GGGTAAAAGCGAACACGAGA | opsin4 F | CAAGAAGCACAAAGTCGTCCA |
| NeuroD R | AATTCTTTGCCGAGGCGTAGA | opsin4 R | TGGAATAAGGCATCCAGGAG |
| Blimp1 F | ACGAATGCAATGTCTGCAAG | Pou4f1 F | TTTACCGTCCAACCAAGACC |
| Blimp1 R | TGACAGCAATGTGGCTTCTC | Pou4f1 R | GTTGCGCCGAGTATTTCAAT |
| Pax6 F | CGGACTCTACCCGACAGAAG | Sp-EBF3F | GCCAGCTAGAACACGAAAGTG |
| Pax6 R | AGCTACCCGAGGCTTACTCC | Sp-EBF3R | TTGCAGCACCGTTGAAGATA |
| Six3 F | CCCCCTACCAAGAACCATTT | Sp-DlxF | AGCCGCCACAGGCACCAGAA |
| Six3 R | AAACCAGTTTTCCGACCTGTG | Sp-DlxR | TCGCCGAAACACGGGAGGGA |
| Rx F | TACGACATCGGGTTACACCA | Sp-Fox1F | CGCCACCGTCGATAACCTG |
| Rx R | TTCCGACGATGCTTCTTCTT | Sp-Fox1R | ATTCTGCCATCCTGCTTTGC |
| Ato2b F1 | CACCTGCGAGATCAAAGACA | Sp-Pitx1AF | CTGGCCCGTTATCGACTTTA |
| Ato2b R1 | CCGACAGTTCTGGTGGATTT | Sp-Pitx1AR | TCCATCCATTCCGTTGTTATTAC |
| Ato2b F2 | CCATGTGGACCTCTGACCTT | Sp-Pitx1BF | CACGAACAGCATAGCATCGC |
| Ato2b R2 | TGTCTTTGATCTCGCAGGTG | Sp-Pitx1BR | TCAAGAGGGTCCGCTGAAAC |
| Ato2b F3 | ACTGCAACGATACCCTGTCC | Sp-Pitx2F | CCTTACGGGTCACCGCCTGG |
| Ato2b R3 | TGTTGATGATGACGGTGCTT | Sp-Pitx2R | TGAAAGCGTGGGGCTCTGGC |
| Ato7 F1 | AAGCGACGTTTGAGCAAGAT | Sp-Pitx3AF | AGCAACGCACGGAACACCCA |
| Ato7 R1 | ATGCCATTTTCGGAATCAAC | Sp-Pitx3AR | CTTCGCTTCTTACTATCGTCATCTTCGTC |
| Ato7 F2 | CCGAAATCTCGGTAACGTGT | Sp-Eya1F | ACCATAATCATCTTCCACTCACTGT |
| Ato7 R2 | AGTCTATCCATCGCGTCGTT | Sp-Eya1R | CAAATCTTGTCCATTGTCATCG |
| Ato (11315) F | CGACGACGATGTCTTTCTCA | Sp-Pax1-9F | AAGAAATGGTCAGATTACGC |
| Ato (11315) R | GTGATTGATCGTGCATCAGG | Sp-Pax1-9R | GACCTTGTTACAGTCCTCA |
| BarH1 F | TTCGATGCAACGTCTCTTTG | Sp-Pax2-5-8F | CCAAAGGTGGTGTGCAAGAT |
| BarH1 R | AGATGGCTGACATGTTGCTG | Sp-Pax2-5-8R | AGACAACCCGTTTGATGCTC |
| RH (05569) F | CTCTTCGGGTGGAATCGTTA | Sp-PaxAF | ACATCGCCATTCGTACATCC |
| RH (05569) R | GAAAGGGATGACGAGAACCA | Sp-PaxAR | CTTCGTTCCCTCCTCTGACTT |
| RH (06737) F | ACCTCTTGGCCTCATCTCCT | Sp-PaxBF | AACAGGATATTGCGGAATAAGATTG |
| RH (06737) R | GTGTTTCTCGTCGCTGTTGA | Sp-PaxBR | GGGTTGCTGCGAGTTGTGAG |
| RH (27634) F1 | GATGGCTCTTTGGGGATGTA | Sp-Phox2BF | TGTCACAAATGCTCGCCGTAT |
| RH (27634) R1 | GCCGTTAGCTTTGGACGTAG | Sp-Phox2BR | CCTGGCTTCAGTTAGATCAGTCTTC |