**PCR primers**

| Name | Sequence |
|---|---|
| INV_ICS Fw | GTAAGAAGCAAGGTTTCA |
| INV_ICS Rv | CTGAAGTATAAAAAAAAAGTCA |
| INF_circ-Hdgfrp3 Fw | TTTTTTATACTTCAGATTGATGAACTCCCAGAGGGC |
| INF_circ-Hdgfrp3 Rv | AACCTTGCTTCTTACCCCTTCACTGGTTTTCTGC |
| INV_p-circ-Ex4 Fw | GAAATACTGCAGATGCAAGCAGTGA |
| INV_p-circ-Ex4 Rv | CACCTTCTCCCTCAGTTTCTGAAGA |
| INF_p-circ-Ex4 Fw | CTGAGGGAGAAGGTGCCCACGGAGGATCCCCAATCG |
| INF_p-circ-Ex4 Rv | CATCTGCAGTATTTCCCCACGGAGGATCCCGGC |
| INV_p-circ-Ex5 Fw | AAGCAGCTCTGAGGGTGG |
| INV_p-circ-Ex5 Rv | TTGTTTTCCTCTTCTTTGCAGTC |
| INF_p-circ-Ex5 Fw | AGAAGAGGAAAACAACCCACGGAGGATCCCCAATCG |
| INF_p-circ-Ex5 Rv | CCCTCAGAGCTGCTTCCCACGGAGGATCCCGGC |
| INV_BSD Fw | GGTTTAGTTCCTCACCTTGTCGT |
| INV_BSD Rv | GCACTTCGTGGCCGAGGA |
| INF_BFP Fw | TCGGCCACGAAGTGCATTAAGCTTGTGCCCCAGTTTGC |
| INF_BFP Rv | GTGAGGAACTAAACCATGGTGTCTAAGGGCGAAGAG |
| BFPnls Fw | TTTCTTTGGATTAAGCTTGTGCCCCAGTTTGC |
| BFPnls Rv | AAGCGGAAAGTGTAAGCACTTCGTGGCCGAGGAGC |
| INV_Puro Fw | GGTAGGGCCGGGATTCTCC |
| INV_Puro Rv | GCTAAGCACTTCGTGGCCG |
| INF_BFP-NLS Fw | CACGAAGTGCTTAGCTTACACTTTCCGCTTTTTCTTTGG |
| INF_BFP-NLS Rv | AATCCCGGCCCTACCATGGTGTCTAAGGGCGAAGAG |
| INV_epb-Eif1a Fw | GGTTCCGGTGGATCTGGAGG |
| INV_epb-Eif1a Rv | TGGCGCTAGCTCACGACACC |
| INF_eGFP Fw | CGTGAGCTAGCGCCACGGGATCCATCGCCACCA |
| INF_eGFP Rv | AGATCCACCGGAACCCTTGTACAGCTCGTCCATGCC |
| INV_epb-Eif1a-GFP Fw | AAGCTTGGCCCTCTAGACTCG |
| INV_epb-Eif1a-GFP Rv | GGTGCCTGCTTTTTTGTACAAAC |
| INF_GFP-FUS Fw | AGCGAATTCAGGGACATGGCCTCAAACGATTATACCC |
| INF_GFP-FUS Rv | TAGAGGGCCCGTTTAAAGCTTTTAATACGGCCTCTCCC |
| INF_GFP-DCP1A Fw | AAAAAAGCAGGCACCATGGAGGCGCTGAGTCGAG |
| INF_GFP-DCP1A Rv | TAGAGGGCCAAGCTTTCATAGGTTGTGGTTGTCTTTGTTC |
| INV_epb-nHOTAIRM1-Pepper Fw | AAGCTTATCGGTACCAACTAGATCT |
| INV_epb-nHOTAIRM1-Pepper Rv | GGATCCACTAGTCCAGTGTGGT |
| INF_ROMO1 Fw | TGGACTAGTGGATCCGTTTTCCGTGAGAGACGTAGAGCT |
| INF_ROMO1 Rv | GGTACCGATAAGCTTTACTCAAAGACTTTCTTTTATTAGT |
| qPCR_circ-HDGFRP3 ex5 Fw | TCCAGGAGATGAAGATGACAAAGAC |
| qPCR_circ-HDGFRP3 ex 3-2 Rv | CTTTGGGACCTAGAAATGCAGTT |
| qPCR_Linear Isoform Fw | AAGTGTTAGCAGCACAGATCAC |
| qPCR_nHOTAIRM1 ex2 Fw | GTTGCTTACATGCTGCGTTTTC |
| qPCR_nHOTAIRM1 ex3 Rv | TTTCAAACACCCACATTTCAACC |
| qPCR_ROMO1 Fw | GCTTCGACCGTGTCAAAATG |
| qPCR_ROMO1 Rv | TTTTCCCAATGCCGCCCATC |
| m_ATP5O Fw | CAACCGCCCTGTACTCTGCT |
| m_ATP5O Rv | GGATTCAGAACAGCCAGAGACAC |
| m_OCT4 Fw | TCCCTACAGCAGATCACTCAC |
| m_OCT4 Rv | TGTCCCTGTAGCCTCATACTC |
| m_PAX6 Fw | GCCAGCAACACTCCTAGTCA |
| m_PAX6 Rv | GTCTGTTCGGCCCAACATG |
| m_HB9 Fw | TGCCAGCACCTTCCAACT |
| m_HB9 Rv | CTTCCCCAAGAGGTTCGACT |
| m_ISLET1 Fw | TGTGGACATTACTCCCTCTTACA |
| m_ISLET1 Rv | TCGTGAATTTGATTGCCGCA |
| m_CHAT Fw | TGGAGAGACAGGAGAAGACAG |
| m_CHAT Rv | GCAGGGCTAGAGTTGACTGG |
| h_ATP5O Fw | TTGAAGGTCGCTATGCCACA |
| h_ATP5O Rv | ACAGAAGCAGCCACTTTGGG |
| h_OCT4 Fw | CCTGAAGCAGAAGAGGATCACC |
| h_OCT4 Rv | AAAGCGGCAGATGGTCGTTTGG |
| h_PAX6 Fw | TGACATTTAAACTCTGGGGCAGG |
| h_PAX6 Rv | GTTTTCTCCACGGATGTTGCTG |
| h_HB9 Fw | GAGACCCAGGTGAAGATTTG |
| h_HB9 Rv | CCTTCTGTTTCTCCGCTTCC |
| h_ISLET1 Fw | TACAAAGTTACCAGCCACC |
| h_ISLET1 Rv | GGAAGTTGAGAGGACATTGA |
| h_CHAT Fw | CTCAGCTACAAGGCCCTGCT |
| h_CHAT Rv | ACCAGCGTGTCCTGGGTATG |

**smFISH probes**

| Name | Sequence |
|---|---|
| circ-Hdgfrp3 | cat#703021 |
| nHOTAIRM1 probe 01 | TCGTCCTACGCTCATAAATC |
| nHOTAIRM1 probe 02 | GGACTATGGCTGGTTTCTGG |
| nHOTAIRM1 probe 03 | CTTCCTCCGCTAAATCTCAG |
| nHOTAIRM1 probe 04 | GGAAGTTCCAATGACAACGC |
| nHOTAIRM1 probe 05 | TGGCTCTTAACAGCAAAGGC |
| nHOTAIRM1 probe 06 | GGGGCGGGTTGATTTAAGAA |
| nHOTAIRM1 probe 07 | GCAGCATGTAAGCAACATGT |
| nHOTAIRM1 probe 08 | ggcaaaacagacCGTGAGAA |
| nHOTAIRM1 probe 09 | gagcgccggggatttaaatg |
| nHOTAIRM1 probe 10 | caaatcggcctttgcagtcg |
| nHOTAIRM1 probe 11 | agaacgcagcttttgctctt |
| nHOTAIRM1 probe 12 | gccagttcatctttcattga |
| nHOTAIRM1 probe 13 | ccataaatccctccacattt |
| nHOTAIRM1 probe 14 | gtttcaaacacccacatttc |
| nHOTAIRM1 probe 15 | cagtctccaggtcaataact |
| nHOTAIRM1 probe 16 | gagtaacacggagtttcttt |
| nHOTAIRM1 probe 17 | ccaagcccaagctcttgaaa |
| nHOTAIRM1 probe 18 | agaggcagaattggacagtc |