**Supplemental Table S1.** Primer pairs used for quantitative real-time PCR analyses.

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| --- | --- | --- | --- | --- |
| **Gene Symbol** | **Gene** | **GenBank accession** | **Sequence of Forward (5’-3’) and Reverse (3’-5’) primers** | **Amplicon (bp)** |
| *Muc5b* | mucin 5, subtype B, tracheobronchial | NM\_028801.2 | 5’ ACATCCTGACCAAGAAATGTGC3’ GACAAGGGCATCTGCGTAAAG | 190 |
| *Muc5ac* | mucin 5, subtypes A and C, tracheobronchial/gastric | NM\_010844.3 | 5’ GTGGTGGAAACTGACATTGG3’ CATCAAAGTTCCCACACAGG | 115 |
| *Cre* | Cre recombinase | - | 5’ TGCCTGCATTACCGGTCG3’GCATAACCAGTGAAACAGCATTGCTG | 321 |
| *Rab3D* | member RAS oncogene family (Rab3d) | [NM\_031874.5](https://www.ncbi.nlm.nih.gov/nucleotide/NM_031874.5?report=genbank&log$=nuclalign&blast_rank=1&RID=GYXV00VS013) | 5’ CGAGATCCACGTGTCGGAAG3’ CACTAGCGGATGCCATCTCA | 312 |
| *P2ry2* | Purinergic receptor P2Y, G-protein coupled receptor 2 | NM\_008773.4 | 5’AGCCCATTACGTGACTGTCCCGAG3’ CCGGAGGACTCCGAGATCA | 128 |
| *M3R* | cholinergic receptor, muscarinic 3  | NM\_033269.4 | 5’CACGAGCGAACCTGAGGAC3’ATGCCATTGCTGGTCATATCTGG | 162 |
| *Actb* | actin, beta | NM\_007393.5 | 5’ CTGTGGCATCCATGAAACTACA3’ GTAATCTCCTTCTGCATCCTGTCA | 141 |
| *RPL13A* | ribosomal protein L13a | NM\_012423.4 | 5’ GGCCCCTACCACTTCCG3’ ACTGCCTGGTACTTCCA | 251 |
| *IL13Rα1*  | interleukin 13 receptor subunit alpha 1  | NM\_001560.3 | 5’ AGGAATACCAGTCCCGACAC3’ TGGAATCCTTCACTTTGGTC | 138 |
| *IL13Rα2* | interleukin 13 receptor subunit alpha 2  | NM\_000640.3 | 5’ TCTTGGAAACCTGGCATAGG3’ TGCCTCCAAATAGGGAAATC | 146 |
| *IL4Rα* | interleukin 4 receptor | NM\_000418.4 | 5’ AACGACCCGGCAGATTTCAG3’ AGGAGTTGTGCCACTTGGTG | 174 |