



**Figure S1. Cytokine and chemokine levels are higher in infected pendrin KO mice.**

Pendrin-expressing (grey bars) and knockout (black bars) littermate mice ( $n=4$ ) were inoculated with *B. pertussis* and the levels of lung cytokine and chemokine gene expression were compared by qPCR on 4 and 7 dpi. \* $p<0.05$ , \*\* $p<0.01$ , \*\*\* $p<0.001$ , relative to strain matched control PBS inoculated mice.

**Table S1. List of genes differentially expressed upon *B. pertussis* infection 4 dpi.**

Gene	<i>B. pertussis</i> vs PBS inoculation mean fold change <sup>s</sup>	
	<i>Slc26a4</i> <sup>+/+</sup>	<i>Slc26a4</i> <sup>-/-</sup>
<i>Apes</i>	-1.2095	-3.2069
<i>C5ar1</i>	1.5183	2.4482
<i>Ccl12</i>	5.2548	11.0587
<i>Ccl5</i>	1.7000	5.9643*
<i>Ccr4</i>	2.5059	1.0467
<i>Ccr5</i>	2.4892	8.2717*
<i>Cd14</i>	3.7334	4.6311
<i>Cd40</i>	1.0675	2.8305
<i>Cd80</i>	1.8564	3.6841
<i>Cd86</i>	1.7375	3.2216
<i>Csf2</i>	2.0649	1.2926
<i>Cxcl10</i>	41.4944	196.9195**
<i>Fasl</i>	1.8501	3.6441
<i>H2-Q10</i>	2.9883	6.4738
<i>H2-T23</i>	1.2850	2.1431
<i>Ifnb1</i>	2.2869	3.8177**
<i>Ifng</i>	21.5667	299.6255*
<i>Il10</i>	5.9466	7.2044***
<i>Il13</i>	-1.4772	-3.2977

<i>Il17a</i>	11.5014	96.6510*
<i>Il1a</i>	1.9211	7.8420**
<i>Il1b</i>	18.7707	73.6700**
<i>Il2</i>	-2.0711	-2.4869
<i>Il23a</i>	4.0735	10.8568*
<i>Il4</i>	-1.4148	6.1115
<i>Il5</i>	-1.6085	-14.1278*
<i>Il6</i>	60.8062	119.9329**
<i>Irak1</i>	-1.4148	-2.5310
<i>Irf3</i>	-1.6085	-3.6329
<i>Irf7</i>	2.4636	11.1712*
<i>Itgam</i>	1.7915	3.1521
<i>Mapk1</i>	-1.0954	-2.1654
<i>Mapk8</i>	-1.2772	-2.6134
<i>Mbl2</i>	1.0800	-3.5364
<i>Mpo</i>	1.6990	-3.4195
<i>Mx1</i>	2.5495	8.0312*
<i>Myd88</i>	1.5889	2.1753
<i>Nlrp3</i>	3.5717	16.6997*
<i>Nod2</i>	1.4134	2.0253
<i>Rag1</i>	-10.2260	-4.2124
<i>Rorc</i>	-1.3502	-2.7183
<i>Slc11a1</i>	1.5348	3.1264

<i>Stat1</i>	2.3382	6.8268**
<i>Tbx21</i>	2.3469	5.3853
<i>Tlr1</i>	1.4170	3.4303
<i>Tlr2</i>	2.1288	3.7858
<i>Tlr5</i>	-1.2796	-4.2142
<i>Tlr6</i>	1.4192	4.6039
<i>Tlr7</i>	1.9533	3.7600
<i>Tlr8</i>	1.5889	2.8160
<i>Tlr9</i>	1.7680	7.2562**
<i>Tnf</i>	3.8837	24.5589**

§ Only those genes that displayed a >2-fold change over PBS inoculated expression levels for either mouse strain are shown. Those transcripts that were significantly altered in infected pendrin KO (*Slc26a4*<sup>-/-</sup>) compared with infected pendrin-expressing (*Slc26a4*<sup>+/+</sup>) mouse lungs are indicated, \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

**Table S2. List of primers used in this study.**

Gene	Forward primer sequence	Reverse primer sequence
<i>Slc26a4</i>	5'-CATACAGCTGGTGTGTTGGAGG-3'	5'-GTGTAGATAATGGAGAGGATGCCG-3'
<i>Il-1β</i>	5'-TGTGAAATGCCACCTTTGA-3'	5'-GGTCAAAGGTTGGAAGCAG-3'
<i>Il-6</i>	5'-TGTCTATACCACCTTCACAAGTCGGAG-3'	5'-GCACAACTCTTCATTTCCAC-3'
<i>Il-10</i>	5'-ATTGAATTCCCTGGGTGAGAAG-3'	5'-CACAGGGAGAAATCGATGACA-3'
<i>Il-17a</i>	5'-CTGTGTCTCTGATGCTGTTGC-3'	5'-AACGGTTGAGGTAGTCTGAGG-3'
<i>Ifn-γ</i>	5'-GGAGGAACTGGCAAAAGGATG-3'	5'-GACGCTTATGTTGCTGATGG-3'
<i>Cxcl1</i>	5'-GCTTGAAGGTGTTGCCCTCA-3'	5'-GTGGCTATGACTTCGGTTGG-3'
<i>Cxcl2</i>	5'-ACCAACCACCAGGCTACAGG-3'	5'-CAGGCATTGACAGCGCAGT-3'
<i>Cxcl10</i>	5'-GCTGCCGTCACTTCTGC-3'	5'-TCTCACTGGCCCGTCATC-3'
<i>Ccl5</i>	5'-TGCAGAGGACTCTGAGACAGC-3'	5'-GAGTGGTGTCCGAGCCATA-3'