

Table S1. Oligonucleotide sequences used in the present study.

Zebrafish gene	Forward primer	Reverse primer
cldn23a	CAACCAACAAGGCAACGACC	CAAGCCGAGAGCAGTTACGA
cldn23b	TTCCCCACTCCCCAAATCG	CCAGATCGATTGACTCCCCG
ppl	CTGTGGCCAGTGCTGACA	TCCTGTACTCTCCTTCTTGAGC
prom2	AGGACCTTTGCTTGGTGGAT	GCATCAATCTTGGGTTTCGGC
Gm3579 (exd2)	CCACTGAGCCCATTCTAGCC	GACACACGAACTCTTTTTACCCA
oclna	GGTCTGCTGGCTGACTATCC	GACTGAATTACGGACGGGCA
oclnb	CTCTCAAGGCATCGGGGAAT	GGAGGATATTCATCTGTGTCAAGC
slc6a19a.1	TCAGCAGCTCAACATCAGCA	ATCTCTTGGGCAGCAGGTTC
slc6a19a.2	CATCGATTTACGCCGCCATC	CAGAAACGTCTGCATGTCGC
slc6a19b	CCTTGGCTTGTCTCCATGT	GTCAAATAGGGCCAGCCAGT
aldh1a3	TTCCTGGATTTGGACCGACG	ATAGACTCGTGATGCAGCGG
sod3a	ACATTCTCCGAGTTCAGACGG	CCTCTTTGTATGTGAAGCGCC
sod3b	TGGCCCAAAGGAAAAGCTGA	GGATTCCAGTGAAGTCCGAA
car6 (ca6)	GACCCTGTGGAACGACTACC	GCTTGCCTTGAACCGCTTTT
cldna	CGCTGTTGATTATTGGCGGG	CCCTTGGTTCCTCCAGATCG
cldnb	GGTGCCTCAGCTCTGTTGAT	AAGTTCTTCCGGAGGGTGC
evlpa	CACTAAACCGCACTGACCCT	TTGGGCTGCAACTCTCTGTT
evlpb	AGACGTTCACTGAGTCGCTG	TTACCTTCTACCGCGCTTT
ef1 α	TTGGAAACGGATATGCTCCA	TCCTTACCTGAACGCCTGTCA

Table S2. Zebrafish orthologues of differentially regulated mammalian genes. The top 10 differentially regulated genes following *Grhl*-dependent modulation in primary epithelia that had identifiable zebrafish orthologues, showing the function of each gene in mammals. Zebrafish orthologues of these ten mammalian genes comprise a total of 18 separate genes.

Grhl targets - Primary epithelia				
Rank	Gene	Gene name	Zebrafish orthologue(s)	Function
1	Cldn23	Claudin 23	<i>cldn23a, cldn23b</i>	Integral membrane proteins and components of tight junctions
2	Ppl	Periplakin	<i>ppl</i>	Components of desmosomes and of the epidermal cornified envelope in keratinocytes
3	Prom2	Prominin 2	<i>prom2</i>	Membrane glycoproteins
4	Ocln	Occludin	<i>oclna, ocldb</i>	Integral membrane proteins and components of tight junction strands
5	Slc6a19	Solute Carrier 6 Family Member 19	<i>slc6a19a.1, slc6a19a.2, slc6a19b</i>	Mediates resorption of neutral amino acids across the apical membrane of renal and intestinal epithelia
6	Aldh1a3	Aldehyde Dehydrogenase 1 Family Member A3	<i>aldh1a3</i>	Catalyzes the formation of retinoic acid
7	SOD3	Superoxide Dismutase 3	<i>sod3a, sod3b</i>	Protection of brain, lungs and other tissues from oxidative stress
8	Car6	Carbonic Anhydrase 6	<i>car6</i>	Reversible hydration of carbon dioxide
9	Cldn4	Claudin 4	<i>cldna, cldnb</i>	Integral membrane protein
10	Evpl	Envoplakin	<i>evpla, evplb</i>	Component of the cornified envelope of keratinocytes

