

**Supplementary Table S1.** Comparative OFT analysis of TAAR5-KO and WT mice.

Data are Mean  $\pm$  SEM, TAAR5 homozygous knock-out group, (n=13); TAAR5 heterozygous group (n=6) and wild type control group, (n=11).

NaCl	WT												
0.25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
0.35	100.00	100.00	92.05	100.00	98.28	84.86	95.23	91.56	89.86	100.00	95.36		
0.4	93.13	93.64	92.83	99.29	99.68	93.95	94.68	93.43	86.97	100.00	93.61		
0.45	65.44	92.08	92.00	95.00	85.57	84.38	93.76	90.08	84.20	94.62	100.00		
0.5	76.52	81.10	86.54	79.55	83.17	75.82	85.44	79.38	76.17	95.72	79.25		
0.55	71.71	59.47	83.84	41.54	81.85	61.09	88.30	77.36	69.29	91.07	78.66		
0.65	13.02	18.06	29.24	3.83	13.62	11.28	22.29	14.30	19.26	25.08	17.88		
NaCl	HET												
0.25	100.00	100.00	100.00	100.00	100.00	100.00							
0.35	91.99	93.21	91.57	96.97	100.00	100.00							
0.4	86.91	97.08	96.31	93.68	100.00	100.00							
0.45	85.43	93.68	93.44	94.17	100.00	89.96							
0.5	70.83	87.45	91.27	94.41	94.57	89.96							
0.55	63.37	66.15	79.21	77.11	92.21	86.80							
0.65	16.14	11.34	16.92	7.87	39.18	17.38							
NaCl	KO												
0.25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.35	100.00	100.00	93.12	93.87	86.55	98.79	97.39	94.38	97.85	93.88	96.46	95.53	94.80
0.4	100.00	98.30	90.98	99.00	90.44	100.00	100.00	94.93	98.53	97.66	98.89	97.07	92.49
0.45	100.00	95.07	87.85	87.32	79.65	98.44	98.62	95.89	94.41	103.03	97.95	94.57	96.61
0.5	86.39	90.12	85.79	85.82	71.23	93.76	100.00	93.72	97.06	96.39	93.94	92.95	99.84
0.55	85.66	79.44	77.77	72.20	69.50	94.76	89.52	85.09	97.66	89.88	91.39	89.06	77.71
0.65	14.80	9.43	11.18	16.54	23.12	31.16	15.38	23.40	40.53	48.48	33.59	54.09	23.95

**Supplementary Table S2.** Comparative hematological analysis of TAAR5-KO and WT mice.

Data are Mean  $\pm$  SEM, TAAR5 homozygous knock-out group, (n=14); TAAR5 heterozygous group (n=6) and wild type control group, (n=20).

Parameters (units)	WT	HET	KO
RBC(M/ul)	7.8 $\pm$ 0.21	8.44 $\pm$ 0.27	7.93 $\pm$ 0.55
Hgb(g/dL)	11.11 $\pm$ 0.91	11.45 $\pm$ 1.46	11.89 $\pm$ 0.49
HCT(%)	39.65 $\pm$ 1.46	44.72 $\pm$ 2.32	45.27 $\pm$ 1.41
MCV(fL)	52.31 $\pm$ 0.91	56.78 $\pm$ 1.45	53.7 $\pm$ 0.58
MCH(pg)	14.59 $\pm$ 0.37	14.4 $\pm$ 0.29	14.06 $\pm$ 0.26
MCHC(g/dL)	28.16 $\pm$ 1.06	25.43 $\pm$ 0.65	26.21 $\pm$ 0.47
RDW(%)	16.42 $\pm$ 0.56	15.7 $\pm$ 1.05	15.39 $\pm$ 0.76
nRBC(k/ul)	0.00	0.00	0.00
WBC(k/ul)	5.28 $\pm$ 0.60	5.44 $\pm$ 0.51	4.56 $\pm$ 0.44
NE(k/ul)	1.4 $\pm$ 0.24	1.27 $\pm$ 0.30	1.34 $\pm$ 0.29
LY(k/ul)	3.15 $\pm$ 0.41	3.03 $\pm$ 0.46	2.70 $\pm$ 0.32
MO(k/ul)	0.10 $\pm$ 0.01	0.16 $\pm$ 0.03	0.13 $\pm$ 0.03
EO(k/ul)	0.35 $\pm$ 0.05	0.42 $\pm$ 0.01	0.22 $\pm$ 0.04
BA(k/ul)	0.02 $\pm$ 0.01	0.03 $\pm$ 0.01	0.03 $\pm$ 0.01
PLT(k/ul)	1268 $\pm$ 60.11	1578 $\pm$ 172.4	1285 $\pm$ 66.54
MPV(fL)	8.364 $\pm$ 0.97	6.917 $\pm$ 0.40	7.214 $\pm$ 0.51
Retic	336.6 $\pm$ 35.98	294.3 $\pm$ 52.73	335.8 $\pm$ 38.02
LUC	0.52 $\pm$ 0.14	0.04 $\pm$ 0.01	0.51 $\pm$ 0.22