

## Supplementary Information

### Comparative Gene Signature of Nociceptors innervating Mouse Molar Teeth, Cranial Meninges and Cornea

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**Table S1. Alignment statistics for the samples.**

There was a high rate of read alignment in all samples, which made them suitable for downstream analysis.

<i>Sample</i>	<i>Total reads</i>	<i>Aligned</i>	<i>Rate</i>	<i>rRNA</i>	<i>rRNA rate</i>
CPAN1	16,523,334	14,755,431	0.89	252,386	0.015
CPAN2	15,408,041	14,480,814	0.94	27,335	0.002
DPAN1	14,674,055	13,884,582	0.94	52,634	0.004
DPAN2	17,387,224	16,124,604	0.92	87,627	0.005
DPAN3	21,638,931	20,648,304	0.95	67,202	0.003
DPAN4	15,766,015	14,459,258	0.91	30,996	0.002
MPAN1	15,423,092	13,266,248	0.86	189,991	0.012
MPAN2	17,500,010	16,388,101	0.93	135,727	0.008
MPAN3	20,315,313	19,628,901	0.96	66,467	0.003
MPAN4	20,356,710	19,311,257	0.94	65,777	0.003

**Table S2. Differentially expressed genes (DEG).**

DEGs in the sensory subpopulations originated from a comparison of identified primary afferent neurons innervating tooth pulp (DPAN), cornea (CPAN) and meninges (MPAN). The column “tg-seq” indicates if the respective gene was either present (“Yes”) or not present (“No”) in human TGs according to the study provided by Yang et al. 2022.

**A** and **B** represents lists with significantly upregulated (A) and downregulated (B) genes from a comparison of DPANs and MPANs.

**D** and **E** represents lists with significantly upregulated (C) and downregulated (D) genes from a comparison of CPANs and DPANs.

**F** and **G** represents lists with significantly upregulated (C) and downregulated (D) genes from a comparison of CPANs and MPANs.

**A. The 18 most prominent genes expressed in DPAN versus MPAN.**

Gene Symbol	Gene Name	Log <sub>2</sub> FC	-Log <sub>10</sub> p-value	tg-seq
<i>Scn2b</i>	Sodium Voltage-Gated Channel Beta Subunit 2	4.85	4.15	Yes
<i>Krt25</i>	Keratin. Type I Cytoskeletal 25	4.74	1.63	Yes
<i>RP24-274B19.1</i>	-	4.53	1.81	N/A
<i>Slc35f2</i>	Solute Carrier Family 35 Member F2	4.45	1.43	Yes
<i>Pmaip1</i>	Phorbol-12-Myristate-13-Acetate-Induced Protein 1	4.29	3.06	Yes
<i>Pappa</i>	Pregnancy-Associated Plasma Protein A. Pappalysin 1	3.54	1.36	Yes
<i>Lxn</i>	Latexin	3.26	3.15	Yes
<i>RP23-10307.2</i>	-	3.25	1.47	N/A
<i>Mlf1</i>	Myeloid Leukemia Factor 1	2.87	1.34	Yes
<i>Tes</i>	Testin LIM Domain Protein	2.87	3.14	Yes
<i>Pex3</i>	Peroxisomal Biogenesis Factor 3	2.76	1.93	Yes
<i>Mospd1</i>	Motile Sperm Domain Containing 1	2.65	2.43	Yes
<i>Gja1</i>	Gap Junction Protein Alpha 1	2.60	1.96	Yes
<i>Spry2</i>	Sprouty RTK Signaling Antagonist 2	2.55	2.67	Yes
<i>Sdhaf3</i>	Succinate Dehydrogenase Complex Flavoprotein Subunit A	2.49	1.47	Yes
<i>Tagln3</i>	Transgelin 3	2.43	1.96	N/A
<i>Msantd4</i>	Myb/SANT DNA Binding Domain Containing 4 With Coiled-Coils	2.24	2.35	Yes
<i>Dnm1l</i>	Dynamin 1 Like	2.07	1.85	Yes
<i>Pitpnc1</i>	Phosphatidylinositol Transfer Protein. Cytoplasmic 1	2.01	1.69	Yes

**B. The 250 most prominent genes expressed in MPAN versus DPAN.**

Gene Symbol	Gene Name	Log <sub>2</sub> FC	-Log <sub>10</sub> p-value	tg-seq
<i>Pf4</i>	Platelet Factor 4	11.56	24.47	Yes
<i>Slfn2</i>	Schlafen Family Member 12	11.07	23.17	No
<i>Cd53</i>	Cd53 Molecule	10.43	20.06	Yes
<i>Tnf</i>	Tumor Necrosis Factor	10.38	17.22	Yes

<b>Igsf6</b>	Immunoglobulin Superfamily Member 6	10.36	19.06	Yes
<b>Il1rn</b>	Interleukin 1 Receptor Antagonist	10.16	21.95	Yes
<b>C1qb</b>	Complement C1q B Chain	9.46	14.60	Yes
<b>Cd48</b>	Cd48 Molecule	9.42	13.40	Yes
<b>Slamf8</b>	SLAM Family Member 8	9.42	15.70	No
<b>Cd86</b>	Cd86 Molecule	9.37	13.11	Yes
<b>Clec4n</b>	C-Type Lectin Domain Family 4 Member N	9.25	11.95	Yes
<b>Cd300c2</b>	CD300c Molecule	9.05	10.44	No
<b>Ncf4</b>	Neutrophil Cytosolic Factor 4	9.03	11.24	No
<b>Lpl</b>	Lipoprotein Lipase	8.99	20.06	Yes
<b>Myo1f</b>	Myosin IF	8.98	13.73	Yes
<b>Aoah</b>	Acyloxyacyl Hydrolase	8.95	10.44	No
<b>Rab7b</b>	RAB7B. Member RAS Oncogene Family	8.75	12.38	No
<b>Unc93b1</b>	Unc-93 Homolog B1. TLR Signaling Regulator	8.64	8.79	Yes
<b>Myof</b>	Myoferlin	8.63	9.88	No
<b>Fcgr3</b>	Fc Gamma Receptor IIIb	8.56	9.74	Yes
<b>Fpr2</b>	Formyl Peptide Receptor 2	8.45	9.30	Yes
<b>Ptpn6</b>	Protein Tyrosine Phosphatase Non-Receptor Type 6	8.42	10.14	Yes
<b>Rac2</b>	Rac Family Small GTPase 2	8.38	11.95	Yes
<b>Trim30a</b>	Tripartite Motif Containing 5	8.37	9.01	No
<b>Trem2</b>	Triggering Receptor Expressed On Myeloid Cells 2	8.36	9.57	Yes
<b>Clec5a</b>	C-Type Lectin Domain Family 5 Member A	8.31	11.09	Yes
<b>Mmp13</b>	Matrix Metalloproteinase 13	8.28	8.03	No
<b>Ms4a6b</b>	membrane-spanning 4-domains, subfamily A, member 6B	8.22	12.82	Yes
<b>Tnfaip3</b>	TNF Alpha Induced Protein 3	8.13	10.34	Yes
<b>Acod1</b>	Aconitate Decarboxylase 1	8.10	15.70	No
<b>Ms4a6c</b>	membrane-spanning 4-domains, subfamily A, member 6C	8.10	7.94	Yes
<b>C3ar1</b>	Complement C3a Receptor 1	7.98	13.82	Yes
<b>Txnip</b>	Thioredoxin Interacting Protein	7.93	9.63	Yes
<b>Ifi213</b>	interferon activated gene 213	7.80	7.31	Yes
<b>Mpeg1</b>	Macrophage Expressed 1	7.78	12.82	Yes
<b>Ifi209</b>	interferon activated gene 209	7.76	6.57	Yes
<b>Traf1</b>	TNF Receptor Associated Factor 1	7.76	9.63	Yes
<b>Uba7</b>	Ubiquitin Like Modifier Activating Enzyme 7	7.72	7.21	Yes
<b>Phf11d</b>	PHD Finger Protein 11	7.68	7.64	Yes
<b>Cd200r1</b>	CD200 Receptor 1	7.65	6.49	No
<b>Cxcl2</b>	C-X-C Motif Chemokine Ligand 2	7.57	14.91	No
<b>Clec4a1</b>	C-Type Lectin Domain Family 4 Member A1	7.46	8.17	Yes
<b>Ly9</b>	Lymphocyte Antigen 9	7.43	5.70	No
<b>Tyrobp</b>	Transmembrane Immune Signaling Adaptor TYROBP	7.41	12.86	Yes
<b>Ifi47</b>	interferon gamma inducible protein 47	7.37	7.24	Yes
<b>Syk</b>	Spleen Associated Tyrosine Kinase	7.30	6.62	Yes
<b>C3</b>	Complement C3	7.26	8.52	No
<b>Acss1</b>	Acyl-CoA Synthetase Short Chain Family Member 1	7.25	6.57	Yes
<b>Gm6377</b>	(predicted gene)	7.25	6.08	No
<b>Il1a</b>	Interleukin 1 Alpha	7.24	5.78	Yes
<b>Fermt3</b>	FERM Domain Containing Kindlin 3	7.17	5.91	Yes
<b>C1qc</b>	Complement C1q C Chain	7.16	5.45	Yes

<b><i>Itgb2</i></b>	Integrin Subunit Beta 2	7.16	10.55	Yes
<b><i>Clec4d</i></b>	C-Type Lectin Domain Family 4 Member D	7.11	7.80	Yes
<b><i>Vav1</i></b>	Vav Guanine Nucleotide Exchange Factor 1	7.10	5.12	No
<b><i>Lyz2</i></b>	lysozyme 2	7.07	5.23	Yes
<b><i>Stap1</i></b>	Signal Transducing Adaptor Family Member 1	7.05	18.54	Yes
<b><i>Tmem106a</i></b>	Transmembrane Protein 106A	7.03	8.41	Yes
<b><i>Cd300lb</i></b>	CD300 Molecule Like Family Member B	7.01	4.86	No
<b><i>Ccl3</i></b>	C-C Motif Chemokine Ligand 3	7.00	9.64	No
<b><i>Tnfaip8</i></b>	TNF Alpha Induced Protein 8	6.90	7.01	Yes
<b><i>Fcer1g</i></b>	Fc Epsilon Receptor Ig	6.88	11.33	Yes
<b><i>Slc15a3</i></b>	Solute Carrier Family 15 Member 3	6.87	6.06	No
<b><i>Tnip3</i></b>	TNFAIP3 Interacting Protein 3	6.84	4.82	No
<b><i>Cd300ld</i></b>	CD300 Molecule Like Family Member D	6.81	5.22	Yes
<b><i>Mmp8</i></b>	Matrix Metalloproteinase 8	6.74	4.96	No
<b><i>Cd84</i></b>	Cd84 Molecule	6.71	10.02	Yes
<b><i>Pirb</i></b>	paired Ig-like receptor B	6.69	8.56	Yes
<b><i>Oas1</i></b>	2'-5'-Oligoadenylate Synthetase Like	6.63	5.37	Yes
<b><i>Rnf128</i></b>	Ring Finger Protein 128	6.57	5.34	Yes
<b><i>Igf1</i></b>	Insulin Like Growth Factor 1	6.56	6.57	Yes
<b><i>Gpr84</i></b>	G Protein-Coupled Receptor 84	6.55	3.79	No
<b><i>Ccl4</i></b>	C-C Motif Chemokine Ligand 4	6.48	16.2	No
<b><i>Hck</i></b>	HCK Proto-Oncogene. Src Family Tyrosine Kinase	6.48	4.31	No
<b><i>Csf2rb</i></b>	Colony Stimulating Factor 2 Receptor Subunit Beta	6.46	3.77	No
<b><i>Dnmt3b</i></b>	DNA Methyltransferase 3 Beta	6.42	4.37	Yes
<b><i>Galnt6</i></b>	Polypeptide N-Acetylgalactosaminyltransferase 6	6.38	3.70	No
<b><i>Clec4e</i></b>	C-Type Lectin Domain Family 4 Member E	6.37	6.71	Yes
<b><i>AI662270</i></b>	(expressed sequence)	6.36	3.61	No
<b><i>Cd72</i></b>	Cd72 Molecule	6.34	5.21	Yes
<b><i>Cd93</i></b>	Cd93 Molecule	6.28	4.92	Yes
<b><i>Cyba</i></b>	Cytochrome B-245 Alpha Chain	6.28	7.39	Yes
<b><i>Spi1</i></b>	Spi-1 Proto-Oncogene	6.26	3.39	Yes
<b><i>Gm26917</i></b>	(predicted gene)	6.25	7.52	No
<b><i>Sod3</i></b>	Superoxide Dismutase 3	6.23	3.56	Yes
<b><i>Tcirg1</i></b>	T Cell Immune Regulator 1. ATPase H+ Transporting V0 Subunit A3	6.23	4.80	Yes
<b><i>Itgam</i></b>	Integrin Subunit Alpha M	6.17	3.30	Yes
<b><i>Gm8995</i></b>	(predicted gene)	6.16	4.31	No
<b><i>Csf2rb2</i></b>	Colony Stimulating Factor 2 Receptor Subunit Beta	6.12	3.60	Yes
<b><i>Slc11a1</i></b>	Solute Carrier Family 11 Member 1	6.12	10.66	Yes
<b><i>Msr1</i></b>	Macrophage Scavenger Receptor 1	6.04	8.67	Yes
<b><i>Rgs1</i></b>	Regulator Of G Protein Signaling 1	6.04	4.78	Yes
<b><i>Tnfaip2</i></b>	TNF Alpha Induced Protein 2	6.03	4.91	Yes
<b><i>Cyth4</i></b>	Cytohesin 4	6.01	3.10	Yes
<b><i>Cd52</i></b>	Cd52 Molecule	5.98	4.13	Yes
<b><i>Il2rg</i></b>	Interleukin 2 Receptor Subunit Gamma	5.93	4.41	Yes
<b><i>Slamf7</i></b>	SLAM Family Member 7	5.93	5.12	No
<b><i>Setbp1</i></b>	SET Binding Protein 1	5.89	4.94	No
<b><i>Ms4a4c</i></b>	membrane-spanning 4-domains, subfamily A, member 4C	5.87	2.88	No

<b><i>Bcl2a1d</i></b>	B cell leukemia/lymphoma 2 related protein A1d	5.84	3.03	Yes
<b><i>Cd180</i></b>	CD180 Molecule	5.78	3.01	No
<b><i>Fcgr1</i></b>	Fc Gamma Receptor Ia	5.74	2.93	No
<b><i>Irf8</i></b>	Interferon Regulatory Factor 8	5.71	2.76	Yes
<b><i>Apobec3</i></b>	Apolipoprotein B mRNA Editing Enzyme Catalytic Subunit 3	5.69	3.63	No
<b><i>Mobp</i></b>	Myelin Associated Oligodendrocyte Basic Protein	5.69	2.89	Yes
<b><i>Tgfb2</i></b>	Transforming Growth Factor Beta Receptor 2	5.67	6.00	Yes
<b><i>Trim30d</i></b>	tripartite motif-containing 30D	5.67	2.83	Yes
<b><i>Cnn2</i></b>	Calponin 2	5.66	2.89	Yes
<b><i>Slc16a13</i></b>	Solute Carrier Family 16 Member 13	5.66	3.14	Yes
<b><i>Evi2a</i></b>	Ecotropic Viral Integration Site 2A	5.62	2.96	Yes
<b><i>Arhgef26</i></b>	Rho Guanine Nucleotide Exchange Factor 26	5.61	4.51	Yes
<b><i>Iigp1</i></b>	interferon inducible GTPase 1	5.53	2.34	Yes
<b><i>Zbp1</i></b>	Z-DNA Binding Protein 1	5.5	2.83	No
<b><i>Cd38</i></b>	CD38 Molecule	5.49	4.05	Yes
<b><i>Ccr1</i></b>	C-C Motif Chemokine Receptor 1	5.43	2.16	No
<b><i>Pigv</i></b>	Phosphatidylinositol Glycan Anchor Biosynthesis Class V	5.41	3.50	Yes
<b><i>Tlr7</i></b>	Toll Like Receptor 7	5.39	2.10	No
<b><i>H2-Ab1</i></b>	histocompatibility 2, class II antigen A, beta 1	5.38	3.50	Yes
<b><i>Plek</i></b>	Pleckstrin	5.36	5.86	Yes
<b><i>Cd74</i></b>	Cd74 Molecule	5.33	5.13	Yes
<b><i>Pid1</i></b>	Phosphotyrosine Interaction Domain Containing 1	5.32	3.34	Yes
<b><i>Hk3</i></b>	Hexokinase 3	5.30	1.99	No
<b><i>Slc40a1</i></b>	Solute Carrier Family 40 Member 1	5.29	1.97	Yes
<b><i>Dhrs3</i></b>	Dehydrogenase/Reductase 3	5.26	3.56	Yes
<b><i>C1qa</i></b>	Complement C1q A Chain	5.24	1.92	Yes
<b><i>Cybb</i></b>	Cytochrome B-245 Beta Chain	5.22	3.54	Yes
<b><i>Hcls1</i></b>	Hematopoietic Cell-Specific Lyn Substrate 1	5.21	2.57	No
<b><i>Pycard</i></b>	PYD And CARD Domain Containing	5.21	2.36	Yes
<b><i>Rab20</i></b>	RAB20. Member RAS Oncogene Family	5.21	2.34	No
<b><i>Tgfb1</i></b>	Transforming Growth Factor Beta Induced	5.15	2.35	Yes
<b><i>Scimp</i></b>	SLP Adaptor And CSK Interacting Membrane Protein	5.14	1.85	Yes
<b><i>Glipr1</i></b>	GLI Pathogenesis Related 1	5.12	2.60	No
<b><i>Cd300a</i></b>	CD300a Molecule	5.10	3.63	Yes
<b><i>Gm43011</i></b>	(predicted gene)	5.10	2.35	No
<b><i>Irf7</i></b>	Interferon Regulatory Factor 7	5.10	8.75	Yes
<b><i>Ucn2</i></b>	Urocortin 2	5.09	2.32	No
<b><i>Sp100</i></b>	SP100 Nuclear Antigen	5.08	2.56	Yes
<b><i>Tgfb2</i></b>	Transforming Growth Factor Beta 2	5.06	1.99	Yes
<b><i>Acvr11</i></b>	Serine/Threonine-Protein Kinase Receptor R3	5.04	1.73	Yes
<b><i>Gm17491</i></b>	(predicted gene)	5.04	1.97	Yes
<b><i>Setdb2</i></b>	SET Domain Bifurcated Histone Lysine Methyltransferase 2	5.01	1.88	Yes
<b><i>Col1a2</i></b>	Collagen Type I Alpha 2 Chain	5.00	3.65	Yes
<b><i>Stamos</i></b>	signal transducing adaptor molecule (SH3 domain and ITAM motif) 1	5.00	2.06	Yes
<b><i>Siglec1</i></b>	Sialic Acid Binding Ig Like Lectin 1	4.99	2.27	Yes
<b><i>Fcgr2b</i></b>	Fc Gamma Receptor IIb	4.93	2.29	No

<b>Mb21d1</b>	Cgas, cyclic GMP-AMP synthase	4.91	2.57	Yes
<b>Ptafr</b>	Platelet Activating Factor Receptor	4.91	6.57	Yes
<b>Tmem171</b>	Transmembrane Protein 171	4.87	1.68	Yes
<b>Gm19744</b>	(predicted gene)	4.86	1.82	Yes
<b>Ncf2</b>	Neutrophil Cytosolic Factor 2	4.83	4.15	Yes
<b>Gm42798</b>	(predicted gene)	4.82	1.93	No
<b>Slc6a12</b>	Solute Carrier Family 6 Member 12	4.82	2.06	Yes
<b>Gngt2</b>	G Protein Subunit Gamma Transducin 2	4.79	2.47	Yes
<b>Camk2a</b>	Calcium/Calmodulin Dependent Protein Kinase II Alpha	4.78	1.79	Yes
<b>Iqgap2</b>	IQ Motif Containing GTPase Activating Protein 2	4.76	1.94	Yes
<b>Rassf2</b>	Ras Association Domain Family Member 2	4.75	1.88	Yes
<b>Cav1</b>	Caveolin 1	4.74	1.63	Yes
<b>Fam76b</b>	Family With Sequence Similarity 76 Member B	4.73	2.05	Yes
<b>Hcar2</b>	Hydroxycarboxylic Acid Receptor 2	4.73	1.43	No
<b>Metrn1</b>	Meteorin Like. Glial Cell Differentiation Regulator	4.73	2.28	Yes
<b>Dpep2</b>	Dipeptidase 2	4.71	1.80	Yes
<b>Zfp263</b>	Zinc Finger Protein 263	4.71	3.31	Yes
<b>Cxcl16</b>	C-X-C Motif Chemokine Ligand 16	4.68	2.51	Yes
<b>Stab1</b>	Stabilin 1	4.68	3.54	Yes
<b>Csf1r</b>	Colony Stimulating Factor 1 Receptor	4.66	2.36	Yes
<b>Egr2</b>	Early Growth Response 2	4.66	2.72	Yes
<b>Pon3</b>	Serum Paraoxonase/Lactonase 3	4.66	1.37	Yes
<b>Ifi204</b>	interferon activated gene 204	4.65	3.34	Yes
<b>Ms4a7</b>	Membrane Spanning 4-Domains A7	4.65	3.15	Yes
<b>Ercc8</b>	ERCC Excision Repair 8. CSA Ubiquitin Ligase Complex Subunit	4.63	2.27	Yes
<b>Dab2</b>	DAB Adaptor Protein 2	4.61	2.73	Yes
<b>Clec4a2</b>	C-Type Lectin Domain Family 4 Member A2	4.59	1.33	Yes
<b>Hvcn1</b>	Hydrogen Voltage Gated Channel 1	4.59	2.32	Yes
<b>H2-Q6</b>	histocompatibility 2, Q region locus 6	4.58	2.36	No
<b>Wrn</b>	WRN RecQ Like Helicase	4.56	1.92	Yes
<b>Gm17435</b>	(predicted gene)	4.54	1.77	Yes
<b>Laptm5</b>	Lysosomal Protein Transmembrane 5	4.54	1.71	Yes
<b>Mitf</b>	Melanocyte Inducing Transcription Factor	4.50	1.88	Yes
<b>Ptprc</b>	Protein Tyrosine Phosphatase Receptor Type C	4.50	1.93	Yes
<b>Tep1</b>	Telomerase Associated Protein 1	4.50	1.85	Yes
<b>Lilrb4a</b>	leukocyte immunoglobulin-like receptor, subfamily B, member 4A	4.49	1.76	Yes
<b>Cd36</b>	CD36 Molecule	4.47	2.89	No
<b>Rnpc3</b>	RNA Binding Region (RNP1. RRM) Containing 3	4.45	3.30	Yes
<b>Slc39a4</b>	Solute Carrier Family 39 Member 4	4.45	1.49	Yes
<b>Proser3</b>	Proline And Serine Rich 3	4.41	1.47	Yes
<b>Arhgap10</b>	Rho GTPase Activating Protein 10	4.40	1.99	Yes
<b>Pdgfrb</b>	Platelet Derived Growth Factor Receptor Beta	4.39	1.33	Yes
<b>Ly6e</b>	Lymphocyte Antigen 6 Family Member E	4.38	1.99	Yes
<b>C5ar1</b>	Complement C5a Receptor 1	4.34	1.39	Yes
<b>Cd83</b>	Cd83 Molecule	4.34	1.55	Yes
<b>Col5a2</b>	Collagen Type V Alpha 2 Chain	4.32	1.46	Yes
<b>Ddx55</b>	DEAD-Box Helicase 55	4.32	4.44	Yes

<b>Gm42467</b>	(predicted gene)	4.32	1.96	No
<b>Itpr2</b>	Inositol 1.4.5-Trisphosphate Receptor Type 2	4.31	1.71	Yes
<b>Fpr1</b>	Formyl Peptide Receptor 1	4.28	1.38	Yes
<b>Nckap1l</b>	NCK Associated Protein 1 Like	4.28	1.39	Yes
<b>Rel1l</b>	RELT Like 1	4.27	1.40	Yes
<b>Rassf4</b>	Ras Association Domain Family Member 4	4.25	1.83	Yes
<b>Casp4</b>	Caspase 4	4.23	2.53	No
<b>Ifi30</b>	IFI30 Lysosomal Thiol Reductase	4.23	1.46	No
<b>Ccl7</b>	C-C Motif Chemokine Ligand 7	4.22	2.29	Yes
<b>Mertk</b>	MER Proto-Oncogene. Tyrosine Kinase	4.12	1.68	Yes
<b>Amotl2</b>	Angiomotin Like 2	4.08	2.15	Yes
<b>Sox2ot</b>	SOX2 Overlapping Transcript	4.07	2.31	Yes
<b>Nnat</b>	Neuronatin	4.04	1.69	Yes
<b>Gm10800</b>	(predicted gene)	4.03	2.57	No
<b>Lcp1</b>	Lymphocyte Cytosolic Protein 1	4.00	2.16	Yes
<b>Gm15261</b>	(predicted gene)	3.96	1.98	No
<b>Zfp36</b>	ZFP36 Ring Finger Protein	3.92	2.34	Yes
<b>H2-Eb1</b>	histocompatibility 2, class II antigen E beta	3.90	1.60	Yes
<b>Zfp574</b>	Zinc Finger Protein 574	3.89	1.78	Yes
<b>Cyp4v3</b>	Cytochrome P450 Family 4 Subfamily V Member 2	3.85	1.58	Yes
<b>Nelfa</b>	Negative Elongation Factor Complex Member A	3.84	1.35	Yes
<b>Pou2f2</b>	POU Class 2 Homeobox 2	3.79	2.27	Yes
<b>Lrp1</b>	LDL Receptor Related Protein 1	3.74	1.63	Yes
<b>Myo6</b>	Myosin VI	3.74	1.33	Yes
<b>Ptpn13</b>	Protein Tyrosine Phosphatase Non-Receptor Type 13	3.71	1.55	Yes
<b>Taok3</b>	TAO Kinase 3	3.67	2.15	Yes
<b>Milr1</b>	Mast Cell Immunoglobulin Like Receptor 1	3.62	1.75	Yes
<b>Slc34a2</b>	Solute Carrier Family 34 Member 2	3.62	1.61	Yes
<b>Rbm47</b>	RNA Binding Motif Protein 47	3.60	1.37	Yes
<b>Itgb6</b>	Integrin Subunit Beta 6	3.56	1.36	Yes
<b>Mdn1</b>	Midasin AAA ATPase 1	3.48	1.91	Yes
<b>Fyb</b>	FYN Binding Protein 1	3.44	3.10	Yes
<b>Hexa</b>	Hexosaminidase Subunit Alpha	3.34	2.35	Yes
<b>Gbp7</b>	Guanylate Binding Protein 7	3.31	1.91	Yes
<b>Creg1</b>	Cellular Repressor Of E1A Stimulated Genes 1	3.27	1.34	Yes
<b>Mmp12</b>	Matrix Metalloproteinase 12	3.24	1.91	Yes
<b>Meis1</b>	Meis Homeobox 1	3.16	4.05	Yes
<b>Mbp</b>	Myelin Basic Protein	3.01	1.96	Yes
<b>Ptms</b>	Parathyrosin	3.01	3.56	Yes
<b>Cnot1</b>	CCR4-NOT Transcription Complex Subunit 1	2.90	1.32	Yes
<b>Cryab</b>	Crystallin Alpha B	2.85	1.71	Yes
<b>Tnfrsf1b</b>	TNF Receptor Superfamily Member 1B	2.77	2.03	Yes
<b>Gpnmb</b>	Glycoprotein Nmb	2.74	1.65	No
<b>Ninj1</b>	Ninjurin 1	2.74	1.73	Yes
<b>Timp3</b>	TIMP Metalloproteinase Inhibitor 3	2.72	1.58	Yes
<b>H2-D1</b>	histocompatibility 2, D region locus 1	2.64	1.75	Yes
<b>Adamts1</b>	ADAM Metalloproteinase With Thrombospondin Type 1 Motif 1	2.57	4.47	Yes
<b>Vamp8</b>	Vesicle Associated Membrane Protein 8	2.53	1.82	Yes
<b>Tapbp</b>	TAP Binding Protein	2.43	1.99	Yes



<b>Gpaa1</b>	Glycosylphosphatidylinositol Anchor Attachment 1	2.41	1.90	Yes
<b>Lipa</b>	Lipase A. Lysosomal Acid Type	2.41	1.55	Yes
<b>Sdccag3</b>	serologically defined colon cancer antigen 3	2.36	1.67	Yes
<b>P2rx4</b>	Purinergic Receptor P2X 4	2.32	1.78	Yes
<b>Sdc4</b>	Syndecan 4	2.29	1.92	Yes
<b>Psap</b>	Prosaposin	2.25	1.80	Yes
<b>Gns</b>	Glucosamine (N-Acetyl)-6-Sulfatase	2.22	2.78	Yes
<b>Grn</b>	Granulin Precursor	2.15	1.55	Yes
<b>H2-K1</b>	histocompatibility 2, K1, K region	2.11	2.77	Yes

**C. The 21 most prominent genes expressed in CPAN versus DPAN.**

Gene Symbol	Gene Name	<b> Log<sub>2</sub>FC </b>	<b>-Log<sub>10</sub> p-value</b>	<b>tg-seq</b>
<b>Setbp1</b>	SET Binding Protein 1	7.92	7.13	No
<b>Txnip</b>	Thioredoxin Interacting Protein	7.72	6.55	Yes
<b>Bche</b>	Butyrylcholinesterase	6.79	3.44	Yes
<b>Phf11d</b>	PHD Finger Protein 11	6.51	3.69	Yes
<b>Apobec3</b>	Apolipoprotein B mRNA Editing Enzyme Catalytic Subunit 3G	5.61	2.18	Yes
<b>Wnt5a</b>	Wnt Family Member 5A	5.30	2.65	Yes
<b>Cd53</b>	CD53 Molecule	5.31	2.34	Yes
<b>Gm42467</b>	(predicted gene)	5.13	2.18	No
<b>Gm37111</b>	(predicted gene)	4.98	1.38	No
<b>Il6</b>	Interleukin 6	4.93	2.28	Yes
<b>Col1a2</b>	Collagen Type I Alpha 2 Chain	4.93	1.34	Yes
<b>Dcdc2a</b>	Doublecortin Domain Containing 2	4.85	1.38	Yes
<b>Syt14</b>	Synaptotagmin 14	4.82	1.48	Yes
<b>Meis1</b>	Meis Homeobox 1	4.60	3.37	Yes
<b>Gm26917</b>	(predicted gene)	4.43	2.06	No
<b>Rab7b</b>	RAB7B. Member RAS Oncogene Family	4.40	1.47	Yes
<b>Ddx55</b>	DEAD-Box Helicase 55	4.30	2.65	Yes
<b>Gbp7</b>	Guanylate Binding Protein 7	4.22	1.51	Yes
<b>Lrrc4c</b>	Leucine Rich Repeat Containing 4C	3.83	1.35	Yes
<b>Mbp</b>	Myelin Basic Protein	3.22	1.83	Yes
<b>Pik3r1</b>	Phosphoinositide-3-Kinase Regulatory Subunit 1	2.80	1.61	Yes

**D. The 81 most prominent genes expressed in DPAN versus CPAN.**

Gene Symbol	Gene Name	<b> Log<sub>2</sub>FC </b>	<b>-Log<sub>10</sub> p-value</b>	<b>tg-seq</b>
<b>Mmp12</b>	Matrix Metalloproteinase 12	8.46	15.77	Yes
<b>Pmaip1</b>	Phorbol-12-Myristate-13-Acetate-Induced Protein 1	7.74	7.13	Yes
<b>Cldn12</b>	Claudin 12	7.73	12.33	Yes
<b>Odf2l</b>	Outer Dense Fiber Of Sperm Tails 2 Like	6.92	7.13	Yes
<b>Rgs5</b>	Regulator Of G Protein Signaling 5	6.57	4.28	Yes
<b>Pik3cd</b>	Phosphatidylinositol-4,5-Bisphosphate 3-Kinase Catalytic Subunit Delta	6.36	7.13	Yes

<b><i>Slc30a7</i></b>	Solute Carrier Family 30 Member 7	6.27	5.64	Yes
<b><i>Plcg1</i></b>	Phospholipase C Gamma 1	6.25	5.15	Yes
<b><i>Snrnp40</i></b>	Small Nuclear Ribonucleoprotein U5 Subunit 40	6.25	6.90	Yes
<b><i>Pdlim1</i></b>	PDZ And LIM Domain 1	6.20	4.00	Yes
<b><i>Dpy19l4</i></b>	Dpy-19 Like 4	6.12	5.80	Yes
<b><i>Cacna2d3</i></b>	Calcium Voltage-Gated Channel Auxiliary Subunit Alpha2delta 3	5.91	3.27	Yes
<b><i>Secisbp2</i></b>	SECIS Binding Protein 2	5.87	5.50	Yes
<b><i>Cyth3</i></b>	Cytohesin 3	5.70	5.20	Yes
<b><i>Fdx1</i></b>	Ferredoxin 1	5.52	3.18	Yes
<b><i>Cckbr</i></b>	Cholecystokinin B Receptor	5.51	2.81	Yes
<b><i>Pdia5</i></b>	Protein Disulfide Isomerase Family A Member 5	5.45	3.56	Yes
<b><i>Tnfrsf1b</i></b>	TNF Receptor Superfamily Member 1B	5.34	3.91	Yes
<b><i>Tnnc1</i></b>	Troponin C1. Slow Skeletal And Cardiac Type	5.34	2.34	Yes
<b><i>Wdr11</i></b>	WD Repeat Domain 11	5.32	4.68	Yes
<b><i>Cdk17</i></b>	Cyclin Dependent Kinase 17	5.30	3.69	Yes
<b><i>Slc9a8</i></b>	Solute Carrier Family 9 Member A8	5.25	3.13	Yes
<b><i>Mtss1l</i></b>	MTSS I-BAR Domain Containing 2	5.24	2.65	Yes
<b><i>Asxl1</i></b>	ASXL Transcriptional Regulator 1	5.16	4.47	No
<b><i>Tex14</i></b>	Testis Expressed 14. Intercellular Bridge Forming Factor	4.96	1.77	Yes
<b><i>Hjrp</i></b>	Holliday Junction Recognition Protein	4.89	2.10	Yes
<b><i>Epb41l4a</i></b>	Erythrocyte Membrane Protein Band 4.1 Like 4A	4.86	1.80	Yes
<b><i>Fkbp5</i></b>	FKBP Prolyl Isomerase 5	4.85	2.28	Yes
<b><i>H2-M3</i></b>	histocompatibility 2, M region locus 3	4.82	2.45	Yes
<b><i>Ccl4</i></b>	C-C Motif Chemokine Ligand 4	4.78	2.60	No
<b><i>Rad1</i></b>	RAD1 Checkpoint DNA Exonuclease	4.75	1.84	Yes
<b><i>Rrp1b</i></b>	Ribosomal RNA Processing 1B	4.74	2.16	Yes
<b><i>Chd5</i></b>	Chromodomain Helicase DNA Binding Protein 5	4.73	1.81	Yes
<b><i>Haus8</i></b>	HAUS Augmin Like Complex Subunit 8	4.73	3.91	Yes
<b><i>D11Wsu47e</i></b>	-	4.71	2.03	Yes
<b><i>Mon1a</i></b>	MON1 Homolog A. Secretory Trafficking Associated	4.70	2.08	Yes
<b><i>Dysf</i></b>	Dysferlin	4.68	1.97	Yes
<b><i>Btbd11</i></b>	-	4.65	2.10	Yes
<b><i>Tada3</i></b>	Transcriptional Adaptor 3	4.65	2.18	Yes
<b><i>Opa1</i></b>	OPA1 Mitochondrial Dynamin Like GTPase	4.64	3.92	Yes
<b><i>Ttc39c</i></b>	Tetratricopeptide Repeat Domain 39C	4.64	1.61	Yes
<b><i>Zfp521</i></b>	Zinc Finger Protein 521	4.62	1.35	Yes
<b><i>Ttc7b</i></b>	Tetratricopeptide Repeat Domain 7B	4.59	2.18	Yes
<b><i>Tti2</i></b>	TELO2 Interacting Protein 2	4.57	1.75	Yes
<b><i>Rpp25</i></b>	Ribonuclease P And MRP Subunit P25	4.51	1.44	Yes
<b><i>Nalcn</i></b>	Sodium Leak Channel. Non-Selective	4.50	1.35	No
<b><i>Uap1l1</i></b>	UDP-N-Acetylglucosamine Pyrophosphorylase 1 Like 1	4.48	2.18	No
<b><i>Wdpcp</i></b>	WD Repeat Containing Planar Cell Polarity Effector	4.48	1.77	Yes
<b><i>Fbxo32</i></b>	F-Box Protein 32	4.44	1.53	Yes
<b><i>Gcc2</i></b>	GRIP And Coiled-Coil Domain Containing 2	4.41	2.51	Yes
<b><i>Mex3d</i></b>	Mex-3 RNA Binding Family Member D	4.41	3.75	Yes
<b><i>Gm13270</i></b>	(predicted gene)	4.39	1.48	Yes
<b><i>Rasa3</i></b>	RAS P21 Protein Activator 3	4.36	1.62	Yes

<b><i>Wipf3</i></b>	WAS/WASL Interacting Protein Family Member 3	4.36	1.61	No
<b><i>Ncbp3</i></b>	Nuclear Cap Binding Subunit 3	4.35	2.25	Yes
<b><i>Atpaf2</i></b>	ATP Synthase Mitochondrial F1 Complex Assembly Factor 2	4.34	1.59	Yes
<b><i>Entpd7</i></b>	Ectonucleoside Triphosphate Diphosphohydrolase 7	4.33	1.77	Yes
<b><i>Nme7</i></b>	NME/NM23 Family Member 7	4.31	1.53	Yes
<b><i>Entpd3</i></b>	Ectonucleoside Triphosphate Diphosphohydrolase 3	4.30	1.45	Yes
<b><i>Cdk8</i></b>	Cyclin Dependent Kinase 8	4.28	2.11	Yes
<b><i>Zfp518b</i></b>	Zinc Finger Protein 518B	4.28	1.35	Yes
<b><i>Klhl22</i></b>	Kelch Like Family Member 22	4.26	2.60	Yes
<b><i>Hnrnpul2</i></b>	Heterogeneous Nuclear Ribonucleoprotein U Like 2	4.24	1.77	Yes
<b><i>Mblac2</i></b>	Metallo-Beta-Lactamase Domain Containing 2	4.17	1.83	Yes
<b><i>Trim17</i></b>	Tripartite Motif Containing 17	4.17	1.48	Yes
<b><i>Fem1a</i></b>	Fem-1 Homolog A	4.12	1.50	Yes
<b><i>Angptl4</i></b>	Angiopoietin Like 4	4.11	1.89	Yes
<b><i>Epm2aip1</i></b>	EPM2A Interacting Protein 1	4.00	1.35	Yes
<b><i>Mad2l1</i></b>	Mitotic Arrest Deficient 2 Like 1	3.96	1.72	Yes
<b><i>Trim24</i></b>	Tripartite Motif Containing 24	3.93	1.77	Yes
<b><i>Gt(ROSA)26 Sor</i></b>	gene trap ROSA 26, Philippe Soriano	3.84	1.48	Yes
<b><i>Ift172</i></b>	Intraflagellar Transport 172	3.82	1.32	Yes
<b><i>Crls1</i></b>	Cardiolipin Synthase 1	3.62	2.58	Yes
<b><i>Peli1</i></b>	Pellino E3 Ubiquitin Protein Ligase 1	3.46	1.84	Yes
<b><i>Cers6</i></b>	Ceramide Synthase 6	3.25	1.34	Yes
<b><i>Lpin1</i></b>	Lipin 1	3.23	1.35	Yes
<b><i>Tmcc3</i></b>	Transmembrane And Coiled-Coil Domain Family 3	3.23	1.31	Yes
<b><i>Ogt</i></b>	O-Linked N-Acetylglucosamine (GlcNAc) Transferase	3.08	1.36	Yes
<b><i>Fam102a</i></b>	Family With Sequence Similarity 102 Member A	3.05	2.13	Yes
<b><i>Birc6</i></b>	Baculoviral IAP Repeat Containing 6	2.96	1.77	Yes
<b><i>Zfp451</i></b>	Zinc Finger Protein 451	2.41	2.22	Yes

**E. The 12 most prominent genes expressed in CPAN versus MPAN.**

Gene Symbol	Gene Name	<b> Log<sub>2</sub>FC </b>	<b>-Log<sub>10</sub> p-value</b>	tg-seq
Gene Symbol	Gene Name	Log <sub>2</sub> FC	-Log <sub>10</sub> p value	tg-seq
<b><i>Bche</i></b>	Butyrylcholinesterase	6.52	7.13	Yes
<b><i>RP24-274B19.1</i></b>	-	5.84	6.55	N/A
<b><i>Gm37111</i></b>	(predicted gene)	5.46	3.44	N/A
<b><i>Agtr1b</i></b>	Angiotensin II Receptor Type 1	5.11	3.69	Yes
<b><i>Spry3</i></b>	Sprouty RTK Signaling Antagonist 3	4.54	2.18	Yes
<b><i>Scn2b</i></b>	Sodium Voltage-Gated Channel Beta Subunit 2	4.17	2.65	Yes
<b><i>Firre</i></b>	Firre Intergenic Repeating RNA Element	3.98	2.34	Yes
<b><i>Mlf1</i></b>	Myeloid Leukemia Factor 1	3.95	2.18	Yes

<b>Zfp946</b>	zinc finger protein 946	3.69	1.38	Yes
<b>Gm15066</b>	predicted gene 15066	3.50	2.28	N/A
<b>Sowahc</b>	Sosondowah Ankyrin Repeat Domain Family Member C	3.25	1.34	Yes
<b>Pik3r1</b>	Phosphoinositide-3-Kinase Regulatory Subunit 1	2.60	1.38	Yes

**F. The 292 most prominent genes expressed in MPAN versus CPAN.**

Gene Symbol	Gene Name	<b> Log<sub>2</sub>FC </b>	<b>-Log<sub>10</sub> p value</b>	tg-seq
<b>Mmp12</b>	Matrix Metalloproteinase 12	11.70	33.31	Yes
<b>Ccl4</b>	C-C Motif Chemokine Ligand 4	11.26	25.20	No
<b>Pf4</b>	Platelet Factor 4	10.48	15.72	Yes
<b>Cxcl2</b>	C-X-C Motif Chemokine Ligand 2	10.18	16.19	No
<b>Slfm2</b>	Schlafen Family Member 12	10.04	13.98	No
<b>Il1rn</b>	Interleukin 1 Receptor Antagonist	9.61	13.98	Yes
<b>Fcer1g</b>	Fc Epsilon Receptor Ig	9.57	13.76	Yes
<b>Tnf</b>	Tumor Necrosis Factor	9.51	10.94	Yes
<b>C3ar1</b>	Complement C3a Receptor 1	9.18	11.05	Yes
<b>Lpl</b>	Lipoprotein Lipase	9.01	12.89	Yes
<b>Slc11a1</b>	Solute Carrier Family 11 Member 1	8.78	13.11	Yes
<b>Itgb2</b>	Integrin Subunit Beta 2	8.60	9.83	Yes
<b>Ccl3</b>	C-C Motif Chemokine Ligand 3	8.54	9.96	No
<b>Igsf6</b>	Immunoglobulin Superfamily Member 6	8.54	10.94	Yes
<b>Acod1</b>	Aconitate Decarboxylase 1	8.53	11.05	No
<b>Msr1</b>	Macrophage Scavenger Receptor 1	8.40	9.88	Yes
<b>Cd86</b>	CD86 Molecule	8.33	8.04	Yes
<b>Slamf8</b>	SLAM Family Member 8	8.17	9.74	No
<b>Tnfrsf1b</b>	TNF Receptor Superfamily Member 1B	8.11	10.72	Yes
<b>Mpeg1</b>	Macrophage Expressed 1	7.98	8.93	Yes
<b>Ncf4</b>	Neutrophil Cytosolic Factor 4	7.95	6.88	No
<b>Cd300c2</b>	CD300C molecule 2	7.82	6.41	No
<b>Aoah</b>	Acyloxyacyl Hydrolase	7.80	6.66	No
<b>Clec5a</b>	C-Type Lectin Domain Containing 5A	7.78	7.08	Yes
<b>Myo1f</b>	Myosin IF	7.76	8.25	Yes
<b>C3</b>	Complement C3	7.74	6.68	No
<b>Clec4e</b>	C-Type Lectin Domain Family 4 Member E	7.74	6.79	Yes
<b>Rac2</b>	Rac Family Small GTPase 2	7.69	7.14	Yes
<b>Cd74</b>	CD74 Molecule	7.64	7.20	Yes
<b>Trem2</b>	Triggering Receptor Expressed On Myeloid Cells 2	7.57	6.32	Yes
<b>Cd48</b>	CD48 Molecule	7.50	6.66	Yes
<b>Clec4d</b>	C-Type Lectin Domain Family 4 Member D	7.46	6.13	Yes
<b>Clec4n</b>	C-type lectin domain family 4, member n	7.43	6.56	Yes
<b>Myof</b>	Myoferlin	7.43	5.85	No
<b>Fcgr3</b>	Fc receptor, IgG, low affinity III	7.36	5.67	Yes
<b>Cd36</b>	CD36 Molecule	7.34	6.32	No
<b>Unc93b1</b>	Unc-93 Homolog B1, TLR Signaling Regulator	7.34	5.28	Yes
<b>Ms4a7</b>	Ubiquitin Like Modifier Activating Enzyme 7	7.26	6.07	Yes
<b>Clec4a1</b>	Membrane Spanning 4-Domains A7	7.25	5.54	Yes
<b>Fpr2</b>	Formyl Peptide Receptor 2	7.25	5.37	Yes
<b>Cldn12</b>	Claudin 12	7.13	10.70	Yes

<b>Mmp13</b>	Matrix Metalloproteinase 13	7.09	4.97	No
<b>Ifi47</b>	interferon gamma inducible protein 47	6.97	4.94	Yes
<b>Ms4a6c</b>	Membrane Spanning 4-Domains A6A	6.93	4.76	Yes
<b>Uap111</b>	UDP-N-Acetylglucosamine Pyrophosphorylase 1 Like 1	6.93	7.08	No
<b>Odf2l</b>	Outer Dense Fiber Of Sperm Tails 2 Like	6.90	7.81	Yes
<b>Tyrobp</b>	Transmembrane Immune Signaling Adaptor TYROBP	6.85	7.20	Yes
<b>Cd84</b>	CD84 Molecule	6.75	7.08	No
<b>Syk</b>	Spleen Associated Tyrosine Kinase	6.75	4.59	Yes
<b>Tnfaip2</b>	TNF Alpha Induced Protein 2	6.73	4.33	Yes
<b>H2-Ab1</b>	histocompatibility 2, class II antigen A, beta 1	6.69	4.47	Yes
<b>Tnfaip3</b>	TNF Alpha Induced Protein 3	6.62	4.95	Yes
<b>Slamf7</b>	SLAM Family Member 7	6.58	4.68	No
<b>Oas1l</b>	2'-5'-Oligoadenylate Synthetase Like	6.57	4.34	Yes
<b>Ifi209</b>	interferon activated gene 209	6.54	3.98	Yes
<b>Igf1</b>	Insulin Like Growth Factor 1	6.51	4.39	Yes
<b>Cd200r1</b>	CD200 Receptor 1	6.49	4.25	No
<b>Gm6377</b>	predicted gene 6377	6.49	4.07	No
<b>Ptpn6</b>	Protein Tyrosine Phosphatase Non-Receptor Type 6	6.47	4.97	Yes
<b>Rgs1</b>	Regulator Of G Protein Signaling 1	6.47	3.96	Yes
<b>Trim30a</b>	tripartite motif-containing 30A	6.46	4.52	No
<b>Fermt3</b>	FERM Domain Containing Kindlin 3	6.44	3.99	Yes
<b>Slc30a7</b>	Solute Carrier Family 30 Member 7	6.35	6.56	Yes
<b>Cd300ld</b>	CD300 Molecule Like Family Member D	6.34	3.81	Yes
<b>Dhrs3</b>	Dehydrogenase/Reductase 3	6.25	4.06	Yes
<b>Ly9</b>	Lymphocyte Antigen 9	6.25	3.52	No
<b>Tnfaip8</b>	TNF Alpha Induced Protein 8	6.21	4.40	Yes
<b>Cd38</b>	CD38 Molecule	6.20	4.16	Yes
<b>Il1a</b>	Interleukin 1 Alpha	6.11	3.43	Yes
<b>Csf1r</b>	Colony Stimulating Factor 1 Receptor	6.05	3.36	Yes
<b>Dpy19l4</b>	Dpy-19 Like 4	6.02	6.32	Yes
<b>Lyz2</b>	lysozyme 2	6.00	2.30	Yes
<b>Rnpc3</b>	RNA Binding Region (RNP1, RRM) Containing 3	6.00	4.85	Yes
<b>Ms4a6b</b>	membrane-spanning 4-domains, subfamily A, member 6B	5.97	5.74	Yes
<b>Pik3cd</b>	Phosphatidylinositol-4,5-Bisphosphate 3-Kinase Catalytic Subunit Delta	5.94	6.70	Yes
<b>Rasa3</b>	RAS P21 Protein Activator 3	5.94	4.36	Yes
<b>Hvcn1</b>	Hydrogen Voltage Gated Channel 1	5.92	3.53	Yes
<b>Snrnp40</b>	Small Nuclear Ribonucleoprotein U5 Subunit 40	5.92	6.66	Yes
<b>Cd93</b>	CD93 Molecule	5.90	3.53	Yes
<b>Cd300lb</b>	CD300 Molecule Like Family Member B	5.86	2.94	No
<b>Ifi213</b>	interferon activated gene 213	5.86	3.37	Yes
<b>Glipr1</b>	GLI Pathogenesis Related 1	5.84	2.74	No
<b>Ppfbp2</b>	PPFIA Binding Protein 2	5.82	3.70	Yes
<b>Dab2</b>	DAB Adaptor Protein 2	5.80	3.63	Yes
<b>Rrp1b</b>	Ribosomal RNA Processing 1B	5.78	4.30	Yes
<b>Stap1</b>	Signal Transducing Adaptor Family Member 1	5.72	8.29	Yes
<b>Slc15a3</b>	Solute Carrier Family 15 Member 3	5.67	3.09	No
<b>Cyth3</b>	Cytohesin 3	5.66	5.77	Yes
<b>Ptprc</b>	Protein Tyrosine Phosphatase Receptor Type C	5.65	2.86	Yes
<b>C1qb</b>	Complement C1q B Chain	5.64	3.90	Yes

<b>Cyba</b>	Cytochrome B-245 Alpha Chain	5.64	3.81	Yes
<b>Asxl1</b>	ASXL Transcriptional Regulator 1	5.63	6.31	No
<b>Pdia5</b>	Protein Disulfide Isomerase Family A Member 5	5.62	4.41	Yes
<b>Pirb</b>	paired Ig-like receptor B	5.59	4.26	Yes
<b>Vav1</b>	Vav Guanine Nucleotide Exchange Factor 1	5.59	2.36	No
<b>Slc16a13</b>	Solute Carrier Family 16 Member 13	5.54	2.68	Yes
<b>Stom</b>	Stomatin	5.51	2.50	Yes
<b>Arhgap10</b>	Rho GTPase Activating Protein 10	5.48	2.86	Yes
<b>Trim25</b>	Tripartite Motif Containing 25	5.48	3.74	Yes
<b>Fcgr2b</b>	Fc Gamma Receptor IIb	5.47	2.57	No
<b>Acss1</b>	Acyl-CoA Synthetase Short Chain Family Member 1	5.44	2.99	Yes
<b>H2-M3</b>	histocompatibility 2, M region locus 3	5.43	3.85	Yes
<b>Pdlim1</b>	PDZ And LIM Domain 1	5.42	3.33	Yes
<b>Secisbp2</b>	SECIS Binding Protein 2	5.42	4.95	Yes
<b>Mmp8</b>	Matrix Metalloproteinase 8	5.40	2.44	Yes
<b>Evi2a</b>	Ecotropic Viral Integration Site 2A	5.38	2.72	Yes
<b>Uba7</b>	Ubiquitin Like Modifier Activating Enzyme 7	5.38	2.86	Yes
<b>Ucn2</b>	Urocortin 2	5.38	2.32	No
<b>Plek</b>	Pleckstrin	5.37	3.74	Yes
<b>Slc6a12</b>	Solute Carrier Family 6 Member 12	5.34	2.33	Yes
<b>AI662270</b>	expressed sequence AI662270	5.28	2.04	No
<b>Fem1a</b>	Fem-1 Homolog A	5.26	3.35	Yes
<b>Mon1a</b>	MON1 Homolog A, Secretory Trafficking Associated	5.26	3.36	Yes
<b>Gpr84</b>	G Protein-Coupled Receptor 84	5.22	2.14	No
<b>Tnip3</b>	TNFAIP3 Interacting Protein 3	5.22	2.14	No
<b>Fcgr1</b>	Fc receptor, IgG, high affinity I	5.19	2.00	No
<b>Bcl2a1d</b>	B cell leukemia/lymphoma 2 related protein A1d	5.18	2.00	Yes
<b>Slc9a8</b>	Solute Carrier Family 9 Member A8	5.17	3.51	Yes
<b>Spi1</b>	Spi-1 Proto-Oncogene	5.17	1.93	Yes
<b>Adam8</b>	ADAM Metalloproteinase Domain 8	5.15	2.23	Yes
<b>Cd53</b>	CD53 Molecule	5.12	3.62	Yes
<b>Cyth4</b>	Cytohesin 4	5.12	1.91	Yes
<b>Akt2</b>	AKT Serine/Threonine Kinase 2	5.11	3.00	Yes
<b>Itgam</b>	Integrin Subunit Alpha M	5.11	1.90	Yes
<b>Dnase2a</b>	deoxyribonuclease II alpha	5.10	2.44	Yes
<b>Laptm5</b>	Lysosomal Protein Transmembrane 5	5.10	2.04	Yes
<b>Pycard</b>	PYD And CARD Domain Containing	5.10	2.13	Yes
<b>Gfod2</b>	Gfo/Idh/MocA-Like Oxidoreductase Domain Containing 2	5.07	2.32	Yes
<b>Cd83</b>	CD83 Molecule	5.06	1.75	Yes
<b>Traf1</b>	TNF Receptor Associated Factor 1	5.05	3.32	Yes
<b>Irf8</b>	Interferon Regulatory Factor 8	5.04	1.86	Yes
<b>Aldh3b1</b>	Aldehyde Dehydrogenase 3 Family Member B1	5.03	2.23	Yes
<b>Stab1</b>	Stabilin 1	5.03	3.18	Yes
<b>Igfbp5</b>	Insulin Like Growth Factor Binding Protein 5	5.00	1.89	Yes
<b>Tgfbr2</b>	Transforming Growth Factor Beta Receptor 2	5.00	3.29	Yes
<b>Wrn</b>	WRN RecQ Like Helicase	4.99	2.15	Yes
<b>Csf2rb</b>	Colony Stimulating Factor 2 Receptor Subunit Beta	4.98	1.66	No
<b>Slc16a10</b>	Solute Carrier Family 16 Member 10	4.97	2.54	Yes
<b>Cep68</b>	Centrosomal Protein 68	4.93	2.46	Yes
<b>H2-Q6</b>	histocompatibility 2, Q region locus 6	4.93	2.39	No

<b>Birc3</b>	Baculoviral IAP Repeat Containing 3	4.92	2.22	Yes
<b>Id3</b>	Inhibitor Of DNA Binding 3	4.92	2.23	Yes
<b>Xdh</b>	Xanthine Dehydrogenase	4.92	2.08	No
<b>Ms4a4c</b>	membrane-spanning 4-domains, subfamily A, member 4C	4.91	1.86	No
<b>Gm8995</b>	predicted gene 8995	4.89	2.17	No
<b>Wdr11</b>	WD Repeat Domain 11	4.89	4.39	Yes
<b>Wfdc17</b>	WAP four-disulfide core domain 17	4.88	2.14	No
<b>Nnt</b>	Nicotinamide Nucleotide Transhydrogenase	4.85	2.44	Yes
<b>Gm42798</b>	(predicted gene)	4.84	1.47	No
<b>Wdpcp</b>	WD Repeat Containing Planar Cell Polarity Effector	4.83	2.51	Yes
<b>Irak2</b>	Interleukin 1 Receptor Associated Kinase 2	4.79	2.03	Yes
<b>Nme7</b>	NME/NM23 Family Member 7	4.78	2.56	Yes
<b>Trim30d</b>	tripartite motif-containing 30D	4.78	1.81	Yes
<b>Fpr1</b>	Formyl Peptide Receptor 1	4.77	1.69	Yes
<b>Hcls1</b>	Hematopoietic Cell-Specific Lyn Substrate 1	4.77	1.91	No
<b>Mtss1l</b>	-	4.73	2.46	Yes
<b>Sp100</b>	SP100 Nuclear Antigen	4.73	1.82	Yes
<b>Egr2</b>	Early Growth Response 2	4.72	2.17	Yes
<b>Naa40</b>	N-Alpha-Acetyltransferase 40, NatD Catalytic Subunit	4.72	2.08	Yes
<b>Tcirg1</b>	T Cell Immune Regulator 1, ATPase H+ Transporting V0 Subunit A3	4.72	1.93	Yes
<b>Elmod3</b>	ELMO Domain Containing 3	4.71	3.09	Yes
<b>Ms4a4a</b>	Membrane Spanning 4-Domains A4A	4.71	1.42	No
<b>Rilpl2</b>	Rab Interacting Lysosomal Protein Like 2	4.68	2.07	Yes
<b>Tada3</b>	Transcriptional Adaptor 3	4.68	2.68	Yes
<b>Aim1</b>	-	4.67	1.92	N/A
<b>Ccr12</b>	C-C Motif Chemokine Receptor Like 2	4.67	1.39	No
<b>Cd180</b>	CD180 Molecule	4.65	1.55	No
<b>Csf2rb2</b>	Colony Stimulating Factor 2 Receptor Subunit Beta	4.65	1.58	Yes
<b>Gnptab</b>	N-Acetylglucosamine-1-Phosphate Transferase Subunits Alpha And Beta	4.65	2.24	Yes
<b>Taz</b>	tafazzin, phospholipid-lysophospholipid transacylase	4.65	1.99	Yes
<b>Iqgap2</b>	IQ Motif Containing GTPase Activating Protein 2	4.64	2.00	Yes
<b>Opa1</b>	OPA1 Mitochondrial Dynamin Like GTPase	4.63	4.27	Yes
<b>Gm19744</b>	predicted gene, 19744	4.62	1.46	Yes
<b>Fyb</b>	FYN binding protein	4.61	3.64	Yes
<b>Ptprm</b>	Protein Tyrosine Phosphatase Receptor Type M	4.61	1.91	Yes
<b>Pml</b>	PML Nuclear Body Scaffold	4.58	2.13	Yes
<b>Slco3a1</b>	Solute Carrier Organic Anion Transporter Family Member 3A1	4.58	2.63	Yes
<b>Ncbp3</b>	Nuclear Cap Binding Subunit 3	4.57	3.36	Yes
<b>Sesn3</b>	Sestrin 3	4.57	2.21	Yes
<b>Herc6</b>	HECT And RLD Domain Containing E3 Ubiquitin Protein Ligase Family Member 6	4.56	1.94	Yes
<b>Syn3</b>	Synapsin III	4.56	1.65	Yes
<b>Parp14</b>	Poly(ADP-Ribose) Polymerase Family Member 14	4.55	1.89	Yes
<b>Parp9</b>	Poly(ADP-Ribose) Polymerase Family Member 9	4.54	1.95	Yes

<b><i>Edem1</i></b>	ER Degradation Enhancing Alpha-Mannosidase Like Protein 1	4.53	1.90	Yes
<b><i>Il1b</i></b>	Interleukin 1 Beta	4.53	1.71	No
<b><i>Ap5z1</i></b>	Adaptor Related Protein Complex 5 Subunit Zeta 1	4.52	2.32	Yes
<b><i>Tti2</i></b>	TELO2 Interacting Protein 2	4.52	2.03	Yes
<b><i>Peli1</i></b>	Pellino E3 Ubiquitin Protein Ligase 1	4.51	4.14	Yes
<b><i>Cd72</i></b>	CD72 Molecule	4.50	1.66	Yes
<b><i>Ccdc130</i></b>	Coiled-coil domain containing 130	4.48	1.95	Yes
<b><i>Gm17491</i></b>	predicted gene, 17491	4.48	1.78	Yes
<b><i>Tgfb1</i></b>	Transforming Growth Factor Beta Induced	4.47	1.59	Yes
<b><i>Plcg1</i></b>	Phospholipase C Gamma 1	4.46	2.59	Yes
<b><i>Apobec1</i></b>	Apolipoprotein B mRNA Editing Enzyme Catalytic Subunit 1	4.44	1.73	Yes
<b><i>Cklf</i></b>	Chemokine Like Factor	4.43	1.80	Yes
<b><i>Ggcx</i></b>	Gamma-Glutamyl Carboxylase	4.42	1.81	Yes
<b><i>Tubgcp4</i></b>	Tubulin Gamma Complex Component 4	4.42	2.92	Yes
<b><i>Trim24</i></b>	Tripartite Motif Containing 24	4.41	2.86	Yes
<b><i>Fam20c</i></b>	FAM20C Golgi Associated Secretory Pathway Kinase	4.40	1.31	Yes
<b><i>Slc39a4</i></b>	Solute Carrier Family 39 Member 4	4.40	1.45	Yes
<b><i>Cd300a</i></b>	CD300a Molecule	4.37	1.87	Yes
<b><i>Polrmt</i></b>	RNA Polymerase Mitochondrial	4.37	1.99	Yes
<b><i>Dpep2</i></b>	Dipeptidase 2	4.36	1.73	Yes
<b><i>Rab7b</i></b>	RAB7B, Member RAS Oncogene Family	4.35	1.90	Yes
<b><i>Gngt2</i></b>	G Protein Subunit Gamma Transducin 2	4.34	1.38	Yes
<b><i>Snhg17</i></b>	Small Nucleolar RNA Host Gene 17	4.34	1.84	Yes
<b><i>Aph1b</i></b>	Aph-1 Homolog B, Gamma-Secretase Subunit	4.31	1.43	Yes
<b><i>Zcchc2</i></b>	Zinc Finger CCHC-Type Containing 2	4.30	1.63	Yes
<b><i>Gldn</i></b>	Gliomedin	4.29	1.58	No
<b><i>Hjrp</i></b>	Holliday Junction Recognition Protein	4.28	1.85	Yes
<b><i>Lcp2</i></b>	Lymphocyte Cytosolic Protein 2	4.26	1.61	Yes
<b><i>Dnmt3b</i></b>	DNA Methyltransferase 3 Beta	4.25	1.50	Yes
<b><i>Nupr1</i></b>	Nuclear Protein 1, Transcriptional Regulator	4.21	1.55	Yes
<b><i>Casp4</i></b>	Caspase 4	4.20	1.85	No
<b><i>Klhl22</i></b>	Kelch Like Family Member 22	4.20	3.09	Yes
<b><i>Map2k3</i></b>	Mitogen-Activated Protein Kinase Kinase 3	4.20	1.68	Yes
<b><i>Sqrdl</i></b>	Sulfide Quinone Oxidoreductase	4.20	1.53	Yes
<b><i>Limd1</i></b>	LIM Domain Containing 1	4.19	1.68	Yes
<b><i>Syne2</i></b>	Spectrin Repeat Containing Nuclear Envelope Protein 2	4.19	1.45	Yes
<b><i>Alg8</i></b>	ALG8 Alpha-1,3-Glucosyltransferase	4.18	1.51	Yes
<b><i>H2-Q7</i></b>	histocompatibility 2, Q region locus 7	4.18	1.31	Yes
<b><i>Zfp598</i></b>	Zinc Finger Protein 598, E3 Ubiquitin Ligase	4.18	1.93	Yes
<b><i>Zfp710</i></b>	Zinc Finger Protein 710	4.15	1.93	Yes
<b><i>Fdx1</i></b>	Ferredoxin 1	4.14	1.89	Yes
<b><i>Mapkbp1</i></b>	Mitogen-Activated Protein Kinase Binding Protein 1	4.13	1.51	Yes
<b><i>Zfp646</i></b>	Zinc Finger Protein 646	4.13	1.51	Yes
<b><i>Haus8</i></b>	HAUS Augmin Like Complex Subunit 8	4.08	3.18	Yes
<b><i>Rufy1</i></b>	RUN And FYVE Domain Containing 1	4.07	1.32	Yes
<b><i>Gt(ROSA)26 Sor</i></b>	gene trap ROSA 26, Philippe Soriano	4.06	1.95	Yes
<b><i>Ipo13</i></b>	Importin 13	4.06	1.33	Yes



<b>Csrp2bp</b>	lysine acetyltransferase 14	4.04	1.48	Yes
<b>Ddx23</b>	DEAD-Box Helicase 23	4.04	1.41	Yes
<b>Mblac2</b>	Metallo-Beta-Lactamase Domain Containing 2	4.04	2.14	Yes
<b>Junb</b>	JunB Proto-Oncogene, AP-1 Transcription Factor Subunit	4.03	1.84	Yes
<b>Milr1</b>	Mast Cell Immunoglobulin Like Receptor 1	4.00	1.83	Yes
<b>Msto1</b>	Misato Mitochondrial Distribution And Morphology Regulator 1	3.98	1.39	Yes
<b>Ncf2</b>	Neutrophil Cytosolic Factor 2	3.97	2.00	Yes
<b>Ttc39c</b>	Tetratricopeptide Repeat Domain 39C	3.97	1.42	Yes
<b>Ptafr</b>	Platelet Activating Factor Receptor	3.96	2.44	Yes
<b>Angptl4</b>	Angiopoietin Like 4	3.94	2.12	Yes
<b>Cdk17</b>	Cyclin Dependent Kinase 17	3.92	2.03	Yes
<b>Creg1</b>	Cellular Repressor Of E1A Stimulated Genes 1	3.92	1.74	Yes
<b>Hdac9</b>	Histone Deacetylase 9	3.92	1.33	Yes
<b>Bckdk</b>	Branched Chain Keto Acid Dehydrogenase Kinase	3.88	1.64	Yes
<b>Dysf</b>	Dysferlin	3.87	1.39	Yes
<b>Atp1a3</b>	ATPase Na <sup>+</sup> /K <sup>+</sup> Transporting Subunit Alpha 3	3.84	1.68	Yes
<b>Tirap</b>	TIR Domain Containing Adaptor Protein	3.84	1.48	Yes
<b>Mybbp1a</b>	MYB Binding Protein 1a	3.83	2.46	Yes
<b>Rad1</b>	RAD1 Checkpoint DNA Exonuclease	3.82	1.39	Yes
<b>Vps52</b>	VPS52 Subunit Of GARP Complex	3.81	1.45	Yes
<b>D11Wsu47e</b>	DNA segment, Chr 11, Wayne State University 47, expressed	3.79	1.48	Yes
<b>Sirpa</b>	Signal Regulatory Protein Alpha	3.77	1.59	Yes
<b>Ift172</b>	intraflagellar Transport 172	3.75	1.90	Yes
<b>Prc1</b>	Protein Regulator Of Cytokinesis 1	3.75	1.31	Yes
<b>Sms</b>	Spermine Synthase	3.74	1.94	Yes
<b>Wipf3</b>	WAS/WASL Interacting Protein Family Member 3	3.71	1.40	No
<b>Fam234b</b>	Family With Sequence Similarity 234 Member B	3.70	1.31	Yes
<b>Entpd7</b>	Ectonucleoside Triphosphate Diphosphohydrolase 7	3.66	1.42	Yes
<b>Ier2</b>	Immediate Early Response 2	3.66	1.74	Yes
<b>Epm2aip1</b>	EPM2A Interacting Protein 1	3.64	1.37	Yes
<b>Ugg1</b>	UDP-Glucose Glycoprotein Glucosyltransferase 1	3.61	1.89	Yes
<b>Grn</b>	Granulin Precursor	3.60	3.07	Yes
<b>Irgm2</b>	immunity-related GTPase family M member 2	3.54	1.44	Yes
<b>Med17</b>	Mediator Complex Subunit 17	3.50	1.40	Yes
<b>Tmcc3</b>	Transmembrane And Coiled-Coil Domain Family 3	3.47	1.84	Yes
<b>Gtf2e1</b>	General Transcription Factor IIE Subunit 1	3.38	1.37	Yes
<b>Mex3d</b>	Mex-3 RNA Binding Family Member D	3.35	2.22	Yes
<b>Mad2l1</b>	Mitotic Arrest Deficient 2 Like 1	3.31	1.39	Yes
<b>Gns</b>	Glucosamine (N-Acetyl)-6-Sulfatase	3.30	2.24	Yes
<b>Gcc2</b>	GRIP And Coiled-Coil Domain Containing 2	3.28	1.31	Yes
<b>Nfasc</b>	Neurofascin	3.27	2.22	Yes
<b>Cers6</b>	Ceramide Synthase 6	3.23	1.49	Yes
<b>Birc6</b>	Baculoviral IAP Repeat Containing 6	3.22	2.63	Yes
<b>Ggh</b>	Gamma-Glutamyl Hydrolase	3.22	1.31	Yes

<b><i>Pmepa1</i></b>	Prostate Transmembrane Protein, Androgen Induced 1	3.11	1.51	Yes
<b><i>Fam102a</i></b>	Family with sequence similarity 102 member A	3.06	2.59	Yes
<b><i>Ogt</i></b>	O-Linked N-Acetylglucosamine (GlcNAc) Transferase	3.06	1.45	Yes
<b><i>Usp5</i></b>	Ubiquitin Specific Peptidase 5	2.98	1.42	Yes
<b><i>Fads1</i></b>	Fatty Acid Desaturase 1	2.93	1.78	Yes
<b><i>Pfkfb4</i></b>	6-Phosphofructo-2-Kinase/Fructose-2,6-Biphosphatase 4	2.90	1.30	Yes
<b><i>Zranb1</i></b>	Zinc Finger RANBP2-Type Containing 1	2.87	1.74	Yes
<b><i>Ppp1r9b</i></b>	Protein Phosphatase 1 Regulatory Subunit 9B	2.72	1.30	Yes
<b><i>Akap10</i></b>	A-Kinase Anchoring Protein 10	2.71	1.54	Yes
<b><i>Slc6a6</i></b>	Solute Carrier Family 6 Member 6	2.70	1.45	Yes
<b><i>Ctsa</i></b>	Cathepsin A	2.62	2.06	Yes
<b><i>Ddost</i></b>	Ddost	2.54	2.60	Yes
<b><i>Tmem120a</i></b>	Transmembrane Protein 120A	2.51	1.65	Yes
<b><i>Nadk</i></b>	NAD Kinase	2.45	1.97	Yes
<b><i>H2-K1</i></b>	histocompatibility 2, K1, K region	2.42	1.99	Yes
<b><i>Pla2g7</i></b>	Phospholipase A2 Group VII	2.31	1.87	Yes
<b><i>H2-D1</i></b>	histocompatibility 2, D region locus 1	2.18	1.45	Yes
<b><i>Plin2</i></b>	Perilipin 2	2.09	1.93	Yes

**Table S3. Average TPM for ion channels genes**

Ion channel genes from primary afferent neurons innervating tooth pulp (DPAN), cornea (CPAN) and meninges (MPAN). Only ion channels are mentioned which had at least a TPM of 0.1 in one of the three groups.

Gene Symbol	DPAN	CPAN	MPAN
<i>Cacna1a</i>	3.15	7.99	2.04
<i>Cacna1b</i>	6.72	2.16	3.14
<i>Cacna1c</i>	0.82	0.35	1.42
<i>Cacna1d</i>	0.34	0.02	0.30
<i>Cacna1e</i>	0.00	0.48	0.23
<i>Cacna1f</i>	0.00	0.00	0.10
<i>Cacna1g</i>	0.18	0.04	0.04
<i>Cacna1h</i>	2.31	0.89	0.28
<i>Cacna1i</i>	0.01	0.01	0.07
<i>Catsper2</i>	3.02	0.00	2.36
<i>Catsper3</i>	0.00	0.00	1.38
<i>Cnga1</i>	0.04	0.00	0.00
<i>Cnga4</i>	7.46	0.31	0.00
<i>Cngb1</i>	0.36	0.03	0.00
<i>Hcn1</i>	8.53	5.43	4.65
<i>Hcn2</i>	0.11	0.17	0.98
<i>Hcn3</i>	9.43	0.13	5.08
<i>Hcn4</i>	3.93	0.09	1.73
<i>Hvcn1</i>	1.14	0.00	23.70
<i>Kcna1</i>	6.47	12.94	7.47
<i>Kcna2</i>	11.50	7.22	3.17
<i>Kcna3</i>	0.00	0.00	0.70
<i>Kcna4</i>	21.70	11.04	7.98
<i>Kcna5</i>	0.00	2.52	0.08
<i>Kcna6</i>	17.20	7.81	11.10
<i>Kcna7</i>	0.02	0.07	0.64
<i>Kcnab1</i>	24.80	0.06	29.40
<i>Kcnab2</i>	68.10	29.21	19.10
<i>Kcnb1</i>	6.02	5.33	6.92
<i>Kcnb2</i>	2.52	5.38	6.06
<i>Kcnc1</i>	2.98	1.82	0.21
<i>Kcnc2</i>	19.50	3.06	7.10
<i>Kcnc3</i>	0.17	0.11	1.24
<i>Kcnc4</i>	18.50	1.82	8.64
<i>Kcnd1</i>	11.30	9.05	17.70
<i>Kcnd3</i>	5.98	2.03	2.18
<i>Kcng1</i>	0.08	0.06	0.04
<i>Kcng2</i>	0.02	5.07	1.65
<i>Kcng3</i>	1.23	0.00	0.03
<i>Kcng4</i>	0.00	0.00	0.03
<i>Kcnh1</i>	2.88	1.89	2.90
<i>Kcnh2</i>	0.46	0.56	1.31
<i>Kcnh3</i>	0.23	0.04	0.19
<i>Kcnh4</i>	0.15	0.07	0.19
<i>Kcnh5</i>	0.00	0.04	0.17
<i>Kcnh6</i>	0.94	1.92	1.43
<i>Kcnh7</i>	7.82	3.83	1.19
<i>Kcnh8</i>	0.14	0.09	1.92

<i>Kcnj10</i>	7.48	0.00	2.19
<i>Kcnj12</i>	7.82	6.11	0.15
<i>Kcnj13</i>	0.00	0.00	4.09
<i>Kcnj14</i>	0.02	0.00	0.55
<i>Kcnj15</i>	0.01	4.76	0.29
<i>Kcnj16</i>	0.00	0.00	0.68
<i>Kcnj2</i>	0.01	1.60	1.78
<i>Kcnj3</i>	1.74	1.43	0.45
<i>Kcnj4</i>	2.07	0.00	0.14
<i>Kcnj6</i>	0.08	0.03	0.23
<i>Kcnj8</i>	0.00	0.00	8.64
<i>Kcnk1</i>	15.90	2.19	11.20
<i>Kcnk10</i>	4.28	7.62	1.55
<i>Kcnk12</i>	0.03	0.00	8.38
<i>Kcnk13</i>	4.17	43.50	7.79
<i>Kcnk18</i>	1.15	0.90	0.37
<i>Kcnk2</i>	7.12	20.92	8.80
<i>Kcnk3</i>	1.91	13.91	7.43
<i>Kcnk4</i>	1.04	1.82	0.72
<i>Kcnk5</i>	0.53	0.08	0.11
<i>Kcnk6</i>	0.73	0.04	2.10
<i>Kcnma1</i>	8.22	0.12	9.32
<i>Kcnn1</i>	0.91	0.00	4.47
<i>Kcnn2</i>	1.60	0.85	2.06
<i>Kcnn3</i>	0.00	0.05	0.05
<i>Kcnn4</i>	3.52	0.05	3.71
<i>Kcnq2</i>	3.85	2.56	1.94
<i>Kcnq3</i>	3.80	0.03	0.79
<i>Kcnq4</i>	0.96	0.00	4.83
<i>Kcnq5</i>	0.58	1.27	0.64
<i>Kcns1</i>	0.77	0.00	3.51
<i>Kcns2</i>	0.01	0.06	0.45
<i>Kcns3</i>	15.90	19.81	22.40
<i>Kcnt1</i>	1.76	0.07	11.40
<i>Kcnt2</i>	2.22	0.00	0.15
<i>Kcnu1</i>	7.31	10.47	4.00
<i>Kcnv1</i>	0.00	16.23	0.43
<i>Mcoln1</i>	15.20	24.18	29.90
<i>Mcoln2</i>	0.78	1.03	12.50
<i>Mcoln3</i>	0.00	0.00	0.68
<i>Pkd2</i>	6.66	16.04	4.70
<i>Pkd2l2</i>	8.50	0.82	4.28
<i>Ryr1</i>	0.01	0.06	0.07
<i>Ryr2</i>	0.93	0.98	0.36
<i>Ryr3</i>	0.54	0.04	0.28
<i>Scn10a</i>	13.60	18.91	39.60
<i>Scn11a</i>	20.90	10.23	60.90
<i>Scn1a</i>	2.77	0.00	0.91
<i>Scn1b</i>	27.60	6.53	18.20
<i>Scn2a</i>	3.70	1.49	3.57
<i>Scn2b</i>	114.00	60.08	0.71
<i>Scn3a</i>	1.07	8.40	2.74
<i>Scn4a</i>	1.40	0.35	0.07

<b>Scn5a</b>	1.65	0.00	0.15
<b>Scn7a</b>	51.80	23.24	27.60
<b>Scn8a</b>	6.37	8.76	1.98
<b>Scn9a</b>	49.20	28.07	40.00
<b>Tpcn1</b>	0.85	1.75	1.44
<b>Tpcn2</b>	2.67	0.08	1.34
<b>Trpa1</b>	88.50	147.73	11.30
<b>Trpc1</b>	4.07	13.26	4.35
<b>Trpc3</b>	6.51	0.05	23.00
<b>Trpc4</b>	0.01	0.00	1.14
<b>Trpc5</b>	0.01	0.08	0.96
<b>Trpc6</b>	0.00	0.81	1.55
<b>Trpm1</b>	0.12	0.50	0.64
<b>Trpm2</b>	0.74	0.07	0.85
<b>Trpm3</b>	0.00	0.14	2.13
<b>Trpm4</b>	0.23	2.32	2.32
<b>Trpm6</b>	0.10	0.04	0.73
<b>Trpm7</b>	13.20	8.24	10.40
<b>Trpm8</b>	9.47	20.83	0.95
<b>Trpv1</b>	60.80	75.86	10.00
<b>Trpv2</b>	99.10	45.08	98.10
<b>Trpv3</b>	0.00	0.72	0.19
<b>Trpv4</b>	0.04	0.07	0.30
<b>Trpv6</b>	0.00	0.00	0.17