

Supplementary table 1. List of designed primers used in validation using qRT-PCR

Gene	Forward (5'→3')	Reverse (5'→3')
S100A9	GCCCTCCTAGGTTGATCTATTC	GACAGCTTCCCTCCACATATAC
CAMP	CTGTAACGAGGTGAGTAGGA	CCTAAGAATCTGCATCCCTAAC
IL20	GAGGGCATCAGATTCCATTACA	GAGATGGCTCAGTGGTTAAGAG
TNFRSF9	CACCTGCCCTTTCCTTATC	GACGCTATCCTGCTCTTTG
CD80	CTGGAGTCACAGGTGGTTATG	CAGAGATGGTTCAGTGGTTAAGA
S100A8	GAAGAGGGCAGGAAGTGTTTAG	GTAGGAGAGAGCATTGGAGAGA
GAPDH	GAGAAACCTGCCAAGTATG	GTTGCTGTAGCCGTATTC

Supplementary table 2. List of common DEGs in DEP-exposed mouse nasal cavity (2-fold change, p-value <0.01,).

Name	Description	Fold Change	
		DEP 4-week	DEP 8-week
SCGB2B2	Secretoglobin family 2B member 2	11.051595	3.1568766
BZW2	Basic leucine zipper and W2 domains 2	3.8284144	2.2699864
KRT2	Keratin 2	3.5506911	2.3806024
SHANK1	SH3 and multiple ankyrin repeat domains 1	3.1340718	2.176008
CAMK2A	Calcium/calmodulin dependent protein kinase II alpha	3.039164	2.4252176
GOLGA7B	Golgin A7 family member B	2.8627381	2.723448
ERMN	Ermin	2.8037426	3.6088524
DMTN	Dematin actin binding protein	2.7872615	2.896504
ATP8A1	Atpase phospholipid transporting 8A1	2.682539	2.8653524
ADRA1B	Adrenoceptor alpha 1B	2.633738	3.0560403
KCNA4	Potassium voltage-gated channel subfamily A member 4	2.5211082	3.0045383
RNF224	Ring finger protein 224	2.5090792	2.3941607
MEF2A	Myocyte enhancer factor 2A	2.5085785	2.8834796
PSME3	Proteasome activator subunit 3	2.4871714	3.0130594
PPRC1	Peroxisome proliferator-activated receptor gamma, coactivator-related 1	2.4650803	2.339213
VAMP5	Vesicle associated membrane protein 5	2.4454386	2.1009383
MLXIPL	MLX interacting protein like	2.4344528	2.0748491
TNFRSF9	Tumor necrosis factor receptor superfamily member 9	2.4051924	2.964651
BPIFC	BPI fold containing family C	2.3959167	3.0020056
TMPRSS3	Transmembrane protease, serine 3	2.3935692	2.7548733
MTFR2	Mitochondrial fission regulator 2	2.3890035	2.6402755
ARHGAP26	Rho gtpase activating protein 26	2.3853269	2.4996178
BTN1A1	Butyrophilin subfamily 1 member A1	2.3731375	2.6460762
PABPC5	Poly(A) binding protein cytoplasmic 5	2.3553214	2.1610248
CEP170B	Centrosomal protein 170B	2.3490095	2.4281545
SLC1A4	Solute carrier family 1 member 4	2.3391402	2.5995924
SEMA6D	Semaphorin 6D	2.3331304	2.5191784
ARHGEF15	Rho guanine nucleotide exchange factor 15	2.3270466	2.828725
SREK1	Splicing regulatory glutamic acid/lysine-rich protein 1	2.3238382	2.6332414
UNG	Uracil DNA glycosylase	2.3211918	2.5478172
CD80	CD80 molecule	2.3032496	2.2270148
SYNPO2L	Synaptopodin 2 like	2.302869	2.6824539
TRIM25	Tripartite motif containing 25	2.2956424	2.6137726
LDLRAD3	Low density lipoprotein receptor class A domain containing 3	2.2935197	2.6222546
WDR89	WD repeat domain 89	2.2884572	2.7782648
NEURL1B	Neuralized E3 ubiquitin protein ligase 1B	2.2882662	2.4609225
ATXN7	Ataxin 7	2.2783968	2.6157286
HECW1	HECT, C2 and WW domain containing E3 ubiquitin protein ligase 1	2.2780359	2.6268585
ZCCHC9	Zinc finger CCHC-type containing 9	2.2748597	2.4421775
EYA1	EYA transcriptional coactivator and phosphatase 1	2.2739706	2.5712502
MMS22L	MMS22 like, DNA repair protein	2.2714155	2.6717768

DPYSL5	Dihydropyrimidinase like 5	2.2657518	2.2927911
RALGPS1	Ral GEF with PH domain and SH3 binding motif 1	2.264105	2.423015
03-Sep	Septin 3	2.255249	2.3784635
SERPINB8	Serpin family B member 8	2.2468264	3.1518662
Ms4a4c	Membrane-spanning 4-domains, subfamily A, member 4C	2.2418149	2.2498732
TMEM239	Transmembrane protein 239	2.2408032	2.6567101
FAM160B2	Family with sequence similarity 160 member B2	2.2400532	2.3158083
SGSH	N-sulfoglucosamine sulfohydrolase	2.2358854	2.2896461
HEMGN	Hemogen	2.2351043	2.4781907
SUV39H2	Suppressor of variegation 3-9 homolog 2	2.2345197	2.5593543
EPHA5	EPH receptor A5	2.2336032	2.5259464
SEMA4C	Semaphorin 4C	2.232857	2.3458047
DNAJC19	Dnaj heat shock protein family (Hsp40) member C19	2.2283833	2.4496598
FAM219A	Family with sequence similarity 219 member A	2.2194228	2.484526
SCN8A	Sodium voltage-gated channel alpha subunit 8	2.2174087	2.512577
ARL6IP6	ADP ribosylation factor like gtpase 6 interacting protein 6	2.2145076	2.3803804
MADD	MAP kinase activating death domain	2.2141438	2.3840473
POU2F2	POU class 2 homeobox 2	2.2130897	4.0913115
ITSN1	Intersectin 1	2.2060797	2.346877
AP5Z1	Adaptor related protein complex 5 zeta 1 subunit	2.197452	2.230601
CYP2U1	Cytochrome P450 family 2 subfamily U member 1	2.1731408	2.2616029
MCAM	Melanoma cell adhesion molecule	2.172203	2.0588164
UBTF	Upstream binding transcription factor, RNA polymerase I	2.1652129	2.2164588
SPAG7	Sperm associated antigen 7	2.1648114	2.070638
ZDHHC6	Zinc finger DHHC-type containing 6	2.1626506	3.4218638
PAK4	P21 protein (Cdc42/Rac)-activated kinase 4	2.1585546	2.3903751
DCAF12L2	DDB1 and CUL4 associated factor 12-like 2	2.1544025	2.5234106
CD6	CD6 molecule	2.1454952	2.0353422
ITLN1	Intelectin 1	2.1290576	2.2130208
CCDC138	Coiled-coil domain containing 138	2.116928	2.2963321
SP110	SP110 nuclear body protein	2.1121755	2.0073664
CCDC13	Coiled-coil domain containing 13	2.0960417	2.5733163
OGFOD1	2-oxoglutarate and iron dependent oxygenase domain containing 1	2.092113	2.383073
F9	Coagulation factor IX	2.0898907	2.2802756
PLEKHG3	Pleckstrin homology and rhogef domain containing G3	2.0882986	2.4332232
DENND4A	DENN domain containing 4A	2.084277	2.069478
CREB5	Camp responsive element binding protein 5	2.0830183	2.0797362
OAS2	2'-5'-oligoadenylate synthetase 2	2.0788598	2.0325975
PER1	Period circadian clock 1	2.0744324	2.3180697
LAIR1	Leukocyte associated immunoglobulin like receptor 1	2.0737743	2.0970979
OTOP1	Otopetrin 1	2.0718021	2.159016
FRYL	FRY like transcription coactivator	2.064193	2.4694033
MRGPRG	MAS related GPR family member G	2.061122	3.1990118
ASCL2	Achaete-scute family bhlh transcription factor 2	2.0587165	2.8239186
VAX2	Ventral anterior homeobox 2	2.0550041	2.214843
SLC35E2	Solute carrier family 35 member E2	2.050038	2.030098
IL15RA	Interleukin 15 receptor subunit alpha	2.046922	2.391515
EPHB3	EPH receptor B3	2.0466082	2.3402212

Scgb1b30	Secretoglobin, family 1B, member 30	2.0363157	2.0163255
FNBP1	Formin binding protein 1	2.0305483	2.1363666
GXYLT2	Glucoside xylosyltransferase 2	2.008374	2.6896322
SMO	Smoothened, frizzled class receptor	2.0066824	2.2770634
IDI2	Isopentenyl-diphosphate delta isomerase 2	0.06245826	0.42578954
ADA	Adenosine deaminase	0.13554321	0.2688079
DYNAP	Dynactin associated protein	0.18011768	0.38515165
S100A9	S100 calcium binding protein A9	0.30301505	0.3003657
NABP1	Nucleic acid binding protein 1	0.3257347	0.20835504
IL20	Interleukin 20	0.32733583	0.12029986
MRAP	Melanocortin 2 receptor accessory protein	0.32784098	0.34882012
LCE3E	Late cornified envelope 3E	0.3388148	0.4019814
ABHD5	Abhydrolase domain containing 5	0.33894295	0.40768456
SCIN	Scinderin	0.34001863	0.3737112
NAT8L	N-acetyltransferase 8 like	0.3662748	0.38583452
GAD1	Glutamate decarboxylase 1	0.38417614	0.3435863
SLC22A4	Solute carrier family 22 member 4	0.3924505	0.47782058
SLC7A11	Solute carrier family 7 member 11	0.39360127	0.277822
NUDT7	Nudix hydrolase 7	0.39964062	0.23630351
HILPDA	Hypoxia inducible lipid droplet associated	0.42394015	0.32412702
ASAH2	N-acylsphingosine amidohydrolase (non-lysosomal ceramidase) 2	0.42399898	0.32812804
PCK1	Phosphoenolpyruvate carboxykinase 1	0.43443576	0.38014042
CNFN	Cornifelin	0.4414075	0.3601149
LSS	Lanosterol synthase (2,3-oxidosqualene-lanosterol cyclase)	0.45175084	0.49945423
PROCA1	Protein interacting with cyclin A1	0.45284295	0.4812887
ARG1	Arginase 1	0.46402812	0.28652152
SYNPR	Synaptoporin	0.47715482	0.3132995
CAMP	Cathelicidin antimicrobial peptide	0.48161036	0.3320983
PPBP	Pro-platelet basic protein	0.48781648	0.19034293
MYH15	Myosin, heavy chain 15	0.49915537	0.3316034
