

Supplementary Table 4 differential expression anterior-posterior cortex

Genes that are differentially expressed between anterior and posterior cortex at 9 pcw

Gene Name	Log 2 fold	P adjusted
ZIC3	3.316820934	4.63E-21
DCT	3.209577832	5.32E-12
GADL1	3.116578311	5.69E-16
CYP26A1	3.033623659	3.75E-12
MIR217HG	2.586740936	4.78E-08
LAMP5	2.494707745	2.16E-07
MYBPC1	2.487607005	2.07E-07
DCHS2	2.465400441	1.16E-11
AE000661.37	2.291916082	6.61E-07
LRRTM3	2.251127881	1.07E-07
MOXD1	1.972086114	0.000234356
TRDC	1.926029601	0.000234356
HKDC1	1.888456551	0.000520509
ACTC1	1.887124989	0.00065774
SPATA13	1.873128127	0.000218255
ANKRD34B	1.781708416	0.000714798
GOLGA2P5	1.774802282	7.57E-11
CTD-2140G10.2	1.773493427	0.000162022
OTOG	1.770753975	0.00286286
KCNK9	1.715955148	2.28E-05
PIP5K1B	1.693719647	4.78E-08
RORB	1.691912163	3.28E-05
CYP26B1	1.690272228	3.67E-05
GIPR	1.674604017	0.007743684
LINC00643	1.6541064	0.003310335
HILS1	1.641858318	0.009556352
CNIH3	1.637172011	2.68E-05
FAM196B	1.63377138	0.008870445
RP11-159K7.2	1.633666305	6.78E-05
RLBP1	1.631551174	0.010110274
CTB-12A17.2	1.617698181	2.16E-07
RP11-844P9.2	1.615644149	0.000974515
ARAP2	1.613256644	0.003659133
HTR2A	1.600195345	0.00028881
NRK	1.598215971	0.002140384

PTER	1.590798504	8.82E-06
SALL3	1.585766195	0.000187245
CDH7	1.580273883	1.03E-08
IL1RAPL2	1.565916233	0.017203942
RP11-331K15.1	1.524803787	0.024192831
SMCR2	1.519849323	0.026541759
IMPA1P	1.519264368	0.005962805
TEC	1.505161482	0.003384429
RP1-137H15.2	1.503100791	0.028686765
RCAN3	1.493077424	2.24E-07
HHIP	1.489927198	0.032019824
USH1C	1.464187669	0.007627456
RP11-849I19.1	1.461171468	0.013848172
LINC01285	1.45307862	0.022919544
ETV1	1.444949634	4.28E-06
ROBO1	1.433814992	1.45E-07
CXXC4	1.418928923	0.008983871
RP11-517P14.7	1.412157586	0.003450351
SALL4	1.410132006	0.006568306
LRRC9	1.409562211	0.008442412
SOCS2	1.403587248	0.000520509
IGSF11	1.402476565	0.000218255
GRB14	1.400588027	0.007214822
RIT2	1.394773327	0.014235703
RP3-466P17.1	1.384298357	1.29E-06
COL6A4P2	1.37120209	0.009556352
PCDH17	1.36930736	0.018578223
MYLK	1.3647404	0.01015303
WNT3	1.361005614	6.67E-05
C11orf63	1.347683637	0.02891569
SLC17A6	1.345440183	0.00457877
NUS1P2	1.344425207	0.007727407
CCDC175	1.344298448	0.03037099
C18orf42	1.337492654	0.0466742
POU3F2	1.328316267	0.010029015
NTN4	1.323537562	0.000234356
ANKRD29	1.317713457	6.15E-07
EYS	1.312153194	0.033268716
FOLH1	1.292304635	1.18E-07
RP11-384O8.1	1.291022683	0.035095866
IGDCC4	1.290775688	1.72E-06
RGAG1	1.288926273	0.000858828
ZDHHC14	1.273409838	6.82E-06

HOPX	1.268426033	0.036219784
SYNJ2	1.243243967	0.005558463
ME1	1.229041476	0.016128379
VAT1L	1.213489668	0.007327158
CA8	1.20485907	0.016208501
PHYH	1.20342625	6.15E-07
CCDC36	1.192401559	0.018773181
SYNM	1.189627814	0.02935281
KITLG	1.186059617	0.048343662
SPAG1	1.165229985	0.019732216
RP11- 1109F11.3	1.164827062	0.007743684
KCNV1	1.164327401	0.011400965
PCDH8	1.164217503	0.036219784
ST8SIA3	1.162692981	0.035977285
ADCY1	1.161217488	0.000206635
CRNDE	1.161129637	0.00105812
RHOJ	1.153188308	0.00286286
LINC01152	1.14973179	0.007214822
TOX	1.13750851	0.034350746
NFIA-AS2	1.13592409	0.015618075
NPY5R	1.133032484	0.033268716
RFTN2	1.126468384	0.034119921
SP8	1.123387038	0.007743684
RNF125	1.121703665	0.023689998
RP3-428L16.2	1.095433337	0.005410852
SOCS2-AS1	1.08176746	0.014311841
BCAT1	1.067781707	0.036219784
TENM2	1.0512605	0.008563057
PDE1C	1.045669936	2.49E-05
AC068057.1	1.040251561	0.011908999
AF186192.5	1.029889466	0.002269008
FRK	1.003643089	0.042375124
NPTX1	-1.02672212	0.034350746
SYN2	-1.03067815	0.03466247
KIAA1324	-1.08399978	0.005378528
FZD7	-1.09013391	1.87E-07
ATOH7	-1.09187289	0.013848172
CD27-AS1	-1.12265269	4.43E-05
PTPN3	-1.18490074	0.002393295
PPARG	-1.2448199	0.000351408
DPP10-AS1	-1.2532731	0.01586224
CNGA3	-1.26976345	3.28E-05
DIRAS3	-1.27249822	0.006195153
FBLN7	-1.31511014	0.00105812
MICAL2	-1.3646685	0.033558184
SHISA6	-1.38131765	2.19E-09

RP11-469H8.6	-1.44220555	0.013848172
HRK	-1.45189445	0.035095866
RP11-215G15.5	-1.46059807	0.003659133
DCLK3	-1.46752486	1.32E-07
ECEL1	-1.47979885	0.036726237
MKX	-1.48089544	0.028478615
CHST15	-1.50175486	0.000120101
SPINK5	-1.50997083	0.00105812
TAC3	-1.51108222	0.021722228
CHRNA3	-1.53933121	8.82E-06
NECAB1	-1.59234887	0.015618075
AC004862.6	-1.61843195	0.002843333
PDPN	-1.67599432	3.25E-09
CHODL	-1.68190687	7.21E-06
RP1-212P9.2	-1.82140837	0.000267376
DGKK	-2.02929528	0.000234356
NR2F1	-2.38816284	3.77E-07
CDH9	-2.41305581	6.15E-07
NR2F1-AS1	-2.43072095	5.60E-09
OCA2	-2.68624169	1.08E-20
MAS1	-3.11502747	9.56E-24
FGFR3	-4.82759528	1.05E-39

Positive Log2 fold value is higher in the anterior cortex.

Negative Log2 fold value is higher in the posterior cortex.

Genes that are differentially expressed between anterior and posterior cortex at **12 pcw**

Gene Name	Log 2 fold	P adjusted
SLC17A8	-1.98648884	2.84E-05
PDZRN3	-1.80670657	4.56E-05
GIPR	-1.79900599	0.00020008
RGS8	-1.79878044	5.74E-05
WIF1	-1.7572201	4.56E-05
ST8SIA5	-1.7517511	5.74E-05
CA8	-1.74483807	0.000125193
SYNDIG1L	-1.70635595	0.000382599
TLL1	-1.70567259	0.000404269
ADAM33	-1.66330276	0.000382599
GRIN2C	-1.64669938	0.000404269
MYBPHL	-1.63505047	0.000382599

GABRQ	-1.61856872	0.000302197
GRM4	-1.61773437	4.56E-05
BRINP2	-1.56031888	0.000733991
CNTN6	-1.55483391	0.000738993
RP11- 742D12.2	-1.53757292	0.001974768
ZBTB7C	-1.52650847	0.000757096
NPY5R	-1.52610876	0.001127388
KCNMB2	-1.51266405	0.000302197
LAMP5	-1.51096481	0.002313725
KRT19	-1.49972027	0.001154186
RP4- 555D20.2	-1.49923158	0.001081937
RP11- 13K12.1	-1.4985507	0.002148024
COL12A1	-1.49485988	4.56E-05
SLIT3	-1.46399933	0.002148024
LRFN2	-1.45427915	0.001550305
THRB	-1.44769574	0.00093725
UNC5C	-1.4459131	0.004359524
ATP5F1P5	-1.43900707	0.004667426
SERTM1	-1.43867462	0.000302197
ERBB4	-1.40520211	0.002272964
GPR1	-1.40425059	0.00388003
SCGN	-1.40044333	0.003990401
SLC25A45	-1.39577583	0.004667426
DLX6-AS1	-1.38833688	0.007336626
DPF3	-1.38487038	0.001064948
NAALAD2	-1.38283179	0.001154186
SPON1	-1.37641615	0.008428975
NPAS1	-1.37235405	0.00093725
PTGS2	-1.37180351	0.003395648
PIP5K1B	-1.36515377	0.001321734
ARAP2	-1.3617944	0.001465728
EYA1	-1.3599742	0.001664042
NRIP3	-1.35825578	0.007162924
SYNJ2	-1.35516512	0.00043179
ABI3BP	-1.35207785	0.006096373
RCAN2	-1.35064863	0.001013927
KCNC2	-1.34936804	0.008101362
KCNIP4	-1.34702996	0.004359524
CLDN1	-1.34565978	0.008901471
MDGA1	-1.34347531	6.22E-06
ADAMTS14	-1.34098624	0.003656903
ABCA1	-1.33980358	0.001038083
ZNF385A	-1.33852827	0.00093725
COLEC12	-1.33752322	0.001974768
KIRREL3	-1.32776612	5.74E-05
RARB	-1.32568269	0.012219823

C11orf63	-1.32219587	0.005681219
BEST4	-1.31798197	0.004359524
CDCP1	-1.31387854	0.012993273
ANXA2P2	-1.31147607	0.01085732
TRIM71	-1.30893981	0.000652415
CPNE8	-1.30510529	0.012361349
MGAT4C	1.301265076	0.000733991
CARD10	-1.29598947	0.001570893
NRXN3	-1.29295984	0.005648568
ITPR2	-1.28973389	0.000685751
RPH3A	-1.28528832	0.007167369
KLHL4	-1.2778529	0.000652415
PRLHR	-1.27775997	0.00595939
TUNAR	-1.27771921	0.012391233
GPNMB	-1.27708249	0.018339787
RP11-796G6.1	-1.27544126	0.01779328
TAC1	-1.26688581	0.018339787
CAMK1G	-1.26533311	0.008901471
LGI4	-1.26441216	0.003789042
ALCAM	-1.2636627	0.000154585
RP11-679B19.1	-1.26078352	0.00093725
SYTL5	-1.25964198	0.014099385
NPY1R	-1.25527984	0.002743176
PLCXD3	-1.24942163	0.005408338
VWA5B1	-1.24878462	0.008101362
GAD1	-1.24767674	0.014099385
UST	-1.23692034	0.007187283
SLC32A1	-1.23381733	0.02207139
GHR	-1.23335349	0.00041953
YPEL2	-1.23101397	0.005648568
AE000661.37	-1.22904233	0.025233298
GRM7	-1.22778605	0.022323189
TBX21	-1.22760534	0.016841981
DLX1	-1.22638145	0.023500504
BCYRN1	-1.21380067	0.018339787
ADARB2	-1.21282483	0.018683871
FBLN5	-1.21164866	0.028460906
PTPRR	-1.20580984	0.000712745
CNIH3	-1.20429308	0.019277258
CBLN2	-1.19541634	0.024641462
GRIP2	-1.19485505	4.09E-05
TGFB2	-1.19266424	0.025029895
ZCCHC12	-1.19165591	0.012440962
PTPRT	-1.19154735	0.01147044
PLXNB3	-1.18917096	0.01640914

RP11-449L23.2	-1.18453611	0.031722112
GABRA1	-1.18390177	0.028544847
DNAH10	-1.18059073	0.025182785
CSMD3	-1.17754633	0.019668238
PRRT4	-1.17716954	0.00954253
RGS11	-1.17062457	0.000733991
PART1	-1.16599705	0.03819006
LINC00277	-1.16528293	0.013293208
CACNA1D	-1.16213074	0.000644946
DLX5	-1.16139437	0.035536552
FAM222A	-1.1595874	0.030011208
BCL6	-1.15956033	0.003656903
CDH6	-1.15065139	0.010297013
SYNM	-1.14944412	0.003112694
GPR17	-1.14274411	0.031733934
COL15A1	-1.13962118	0.004667426
CYP26A1	-1.1368572	0.042761997
RP11-108M9.3	-1.13585333	0.039254064
ANGPT1	-1.12497518	0.025828658
LGR4	-1.12456371	0.030426116
TC2N	-1.11646345	0.036424633
FGF1	-1.11483867	0.041315732
FREM1	-1.10454394	0.030271439
CYGB	-1.10252841	0.029063441
NTN1	-1.09853822	0.032962239
LMO4	-1.09495078	0.023900177
RP11-272L13.3	-1.09230503	0.019496855
STK32B	-1.09208272	0.043585879
GREB1	-1.09045041	0.048499065
MIR137HG	-1.08680114	0.01779328
HR	-1.08624737	0.030639231
CHRM2	-1.08607741	0.030503459
LINC01305	-1.07963752	0.046526097
PLA2R1	-1.07685542	0.035536552
RP11-517P14.7	-1.07427896	0.013835774
ABCA12	-1.07110173	0.038121398
RP11-351J23.2	-1.06748398	0.030271439
LRRTM3	-1.06156755	0.017627886
ZMAT4	-1.05985104	0.017611929
HCRTR2	-1.05763347	0.030579987
PLS3	-1.0563492	0.013468674
PCDH19	-1.05514921	0.035536552
RP11-9G1.3	-1.04989341	0.010345895
FZD4	-1.04489298	0.00509972

SYN3	-1.0447323	0.027018371
COLGALT2	-1.04447481	0.038121398
KLHL29	-1.04130448	0.012901845
IFIT3	-1.03847394	0.034889917
ITPR3	-1.03785464	0.013293208
LRRC9	-1.036517	0.00746993
MLIP	-1.03581536	0.000605117
RP11-713C5.1	-1.03488682	0.047739216
TMEFF2	-1.0346771	0.031193902
LYPD6B	-1.03165112	0.045362743
ZNF114	-1.02967851	0.007675266
MIR770	-1.02506056	0.031733934
KRT13	-1.02361414	0.048048637
ANXA2	-1.02313622	0.002587916
TCEA3	-1.0227556	0.042761997
RP11-490G2.2	-1.02009536	0.042761997
PPP2R1B	-1.01433257	0.012391233
C2orf72	-1.01021113	0.04938823
OLIG2	-1.0070065	0.038507579
RASGRF2	-1.00539728	0.012325442
ETS2	-1.00130727	0.000520869
PTGES3P2	1.002540735	0.000382599
PAPPA2	1.009824411	0.030627497
CHRNA3	1.015743977	0.017991722
RPL12L3	1.027108261	0.036862095
CTD-2620I22.7	1.076004754	0.035536552
SLC7A10	1.094301561	0.044338822
RP11-932O9.10	1.096634206	0.031132905
CYP26B1	1.120025742	0.019668238
SNORD15B	1.122684366	0.043099727
COX7A1	1.133388921	0.005680874
KIF25-AS1	1.14935424	0.026428148
MDFI	1.167748363	0.004113725
RPS12P26	1.263538249	0.008882413
LLNLF-158E9.1	1.271713817	0.003990401
RP5-1024C24.1	1.3538704	0.000600792
CARTPT	1.365887388	0.001664042
RP11-677M24.1	1.418327114	0.002952903

Positive Log2 fold value is higher in the anterior cortex.

Negative Log2 fold value is higher in the posterior cortex.

Genes that are differentially expressed
between anterior and posterior cortex at both
9 and 12 pcw

Gene Name	Gene Type	9 PCW		12 PCW	
		Log 2 fold	P adjusted	Log 2 fold	P adjusted
CYP26A1	Protein coding	3.03	3.75E-12	1.14	0.042762
LAMP5	Protein coding	2.49	2.16E-07	1.51	0.002314
AE000661.37	Processed transcript	2.29	6.61E-07	1.23	0.025233
LRRTM3	Protein coding	2.25	1.07E-07	1.06	0.017628
PIP5K1B	Protein coding	1.69	4.78E-08	1.37	0.001322
CYP26B1	Protein coding	1.69	3.67E-05	1.12	0.019668
GIPR	Protein coding	1.67	0.007744	1.8	0.0002
CNIH3	Protein coding	1.64	2.68E-05	1.2	0.019277
ARAP2	Protein coding	1.61	0.003659	1.36	0.001466
RP11-517P14.7	Unprocessed pseudogene	1.41	0.00345	1.07	0.013836
LRRC9	Protein coding	1.41	0.008442	1.04	0.00747
C11orf63	Protein coding	1.35	0.028916	1.32	0.005681
SYNJ2	Protein coding	1.24	0.005558	1.36	0.000432
CA8	Protein coding	1.2	0.016209	1.75	0.000125
SYNM	Protein coding	1.19	0.029353	1.15	0.003113
NPY5R	Protein coding	1.13	0.033269	1.53	0.001127
CHRNA3	Protein coding	1.54	8.82E-06	1.02	0.017992

Red Log2 fold values are higher in anterior

Blue log2 fold values are higher in posterior