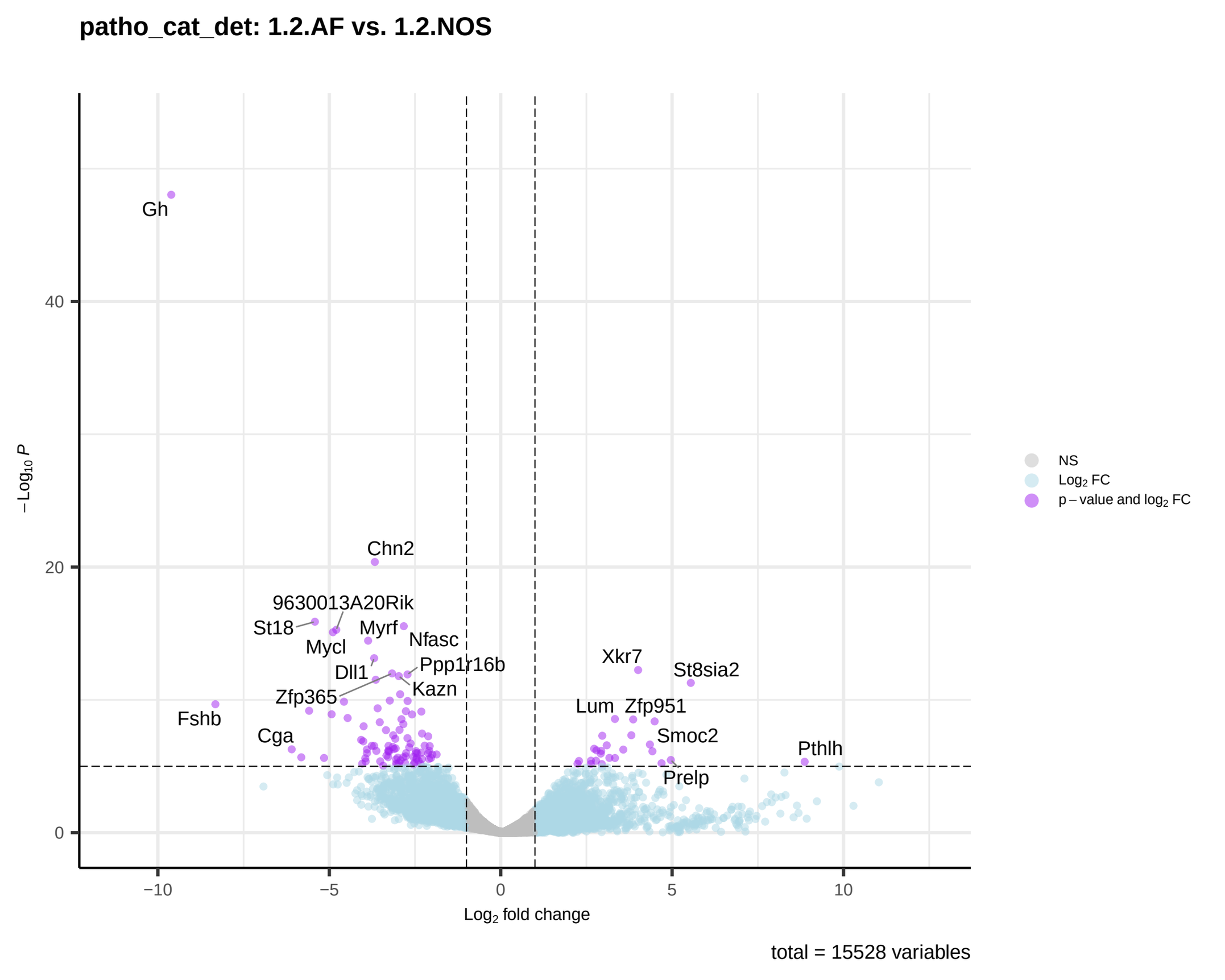
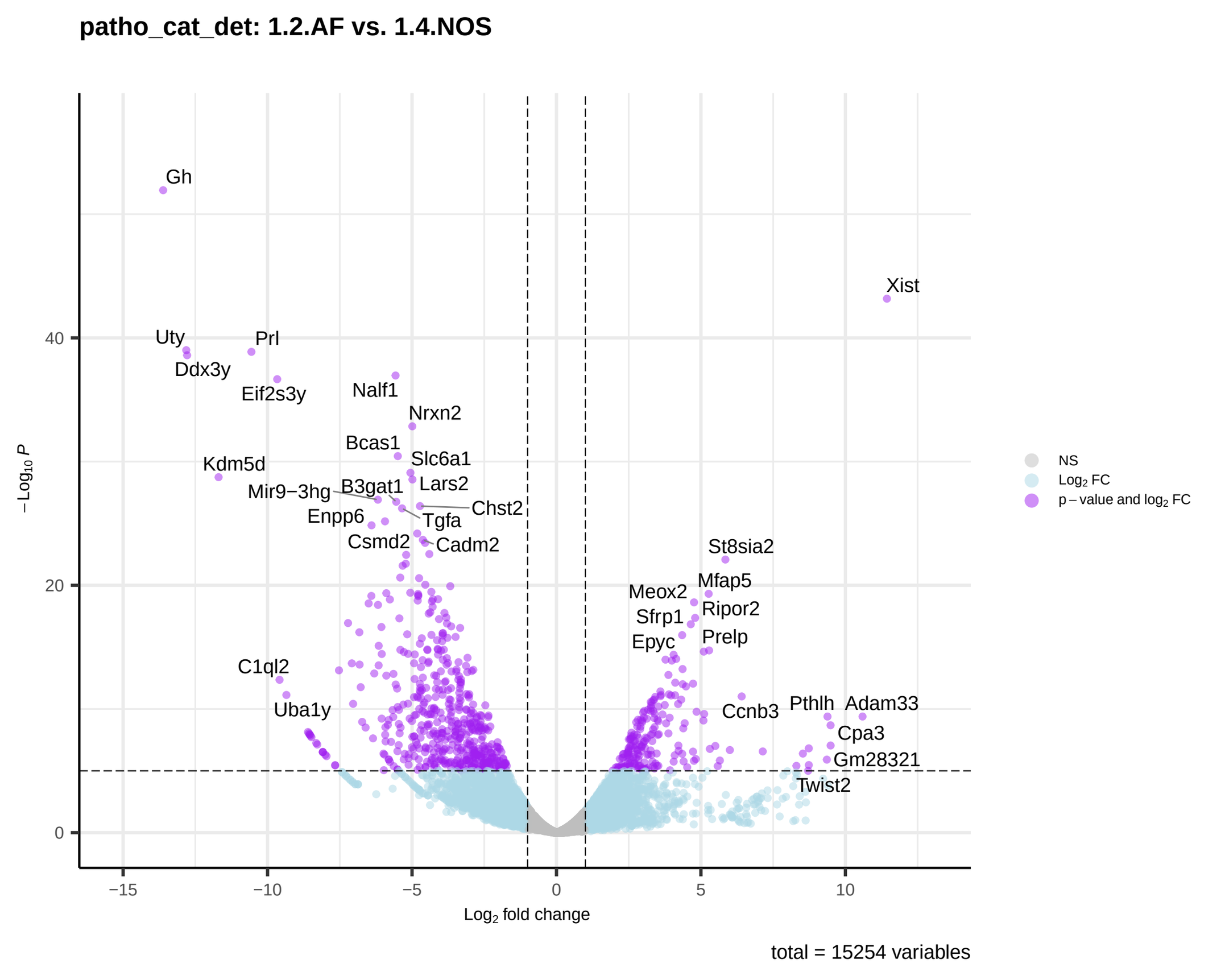
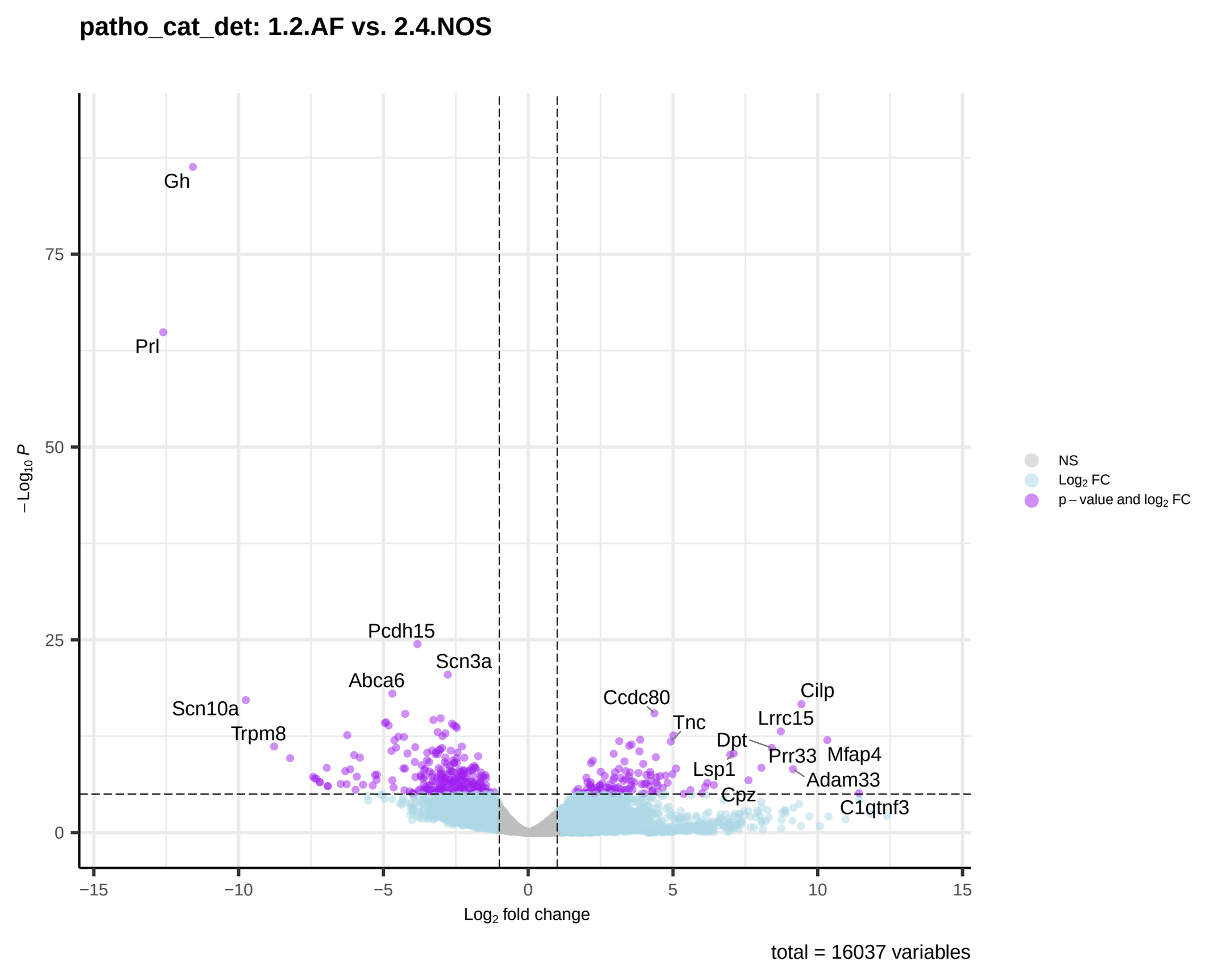
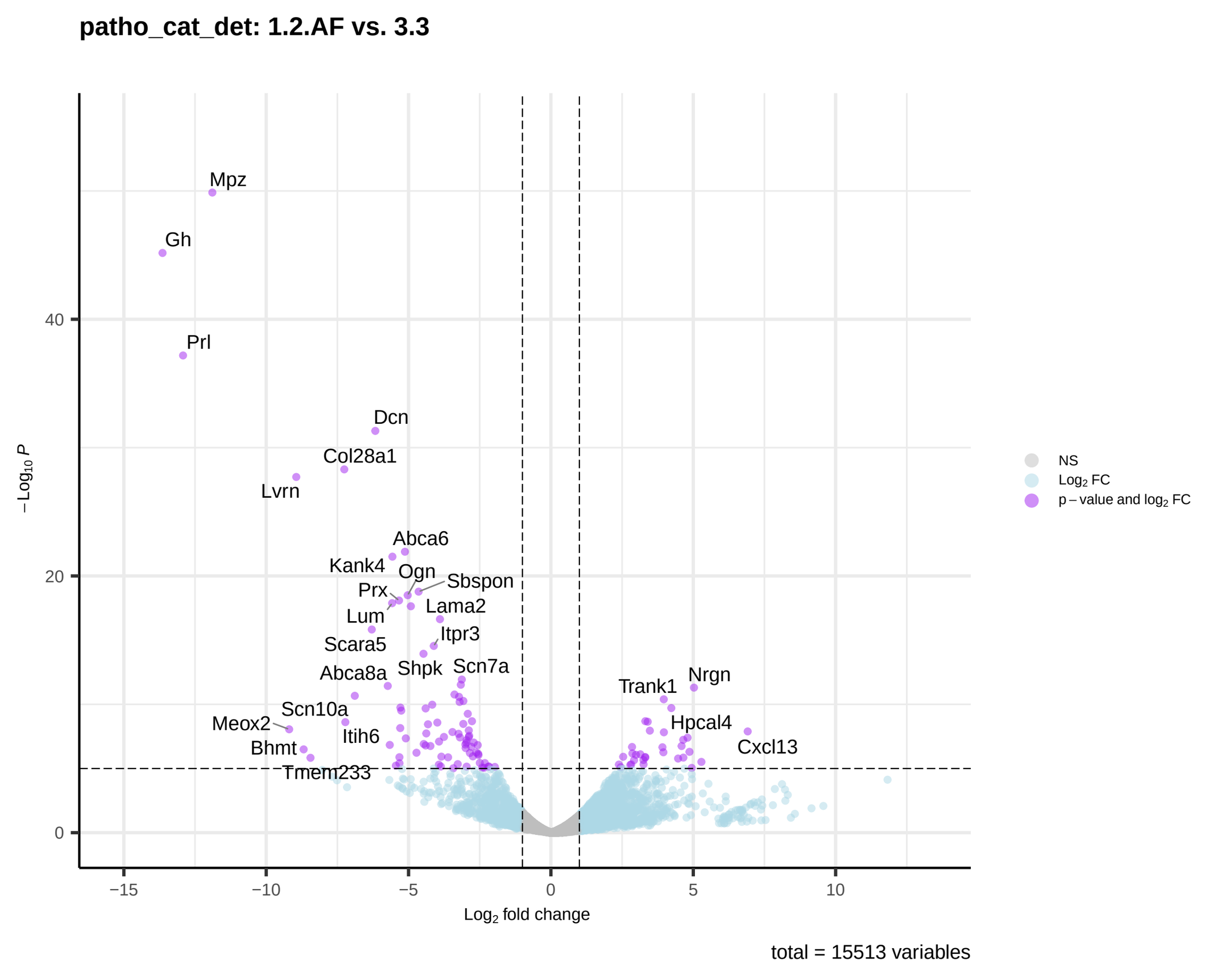
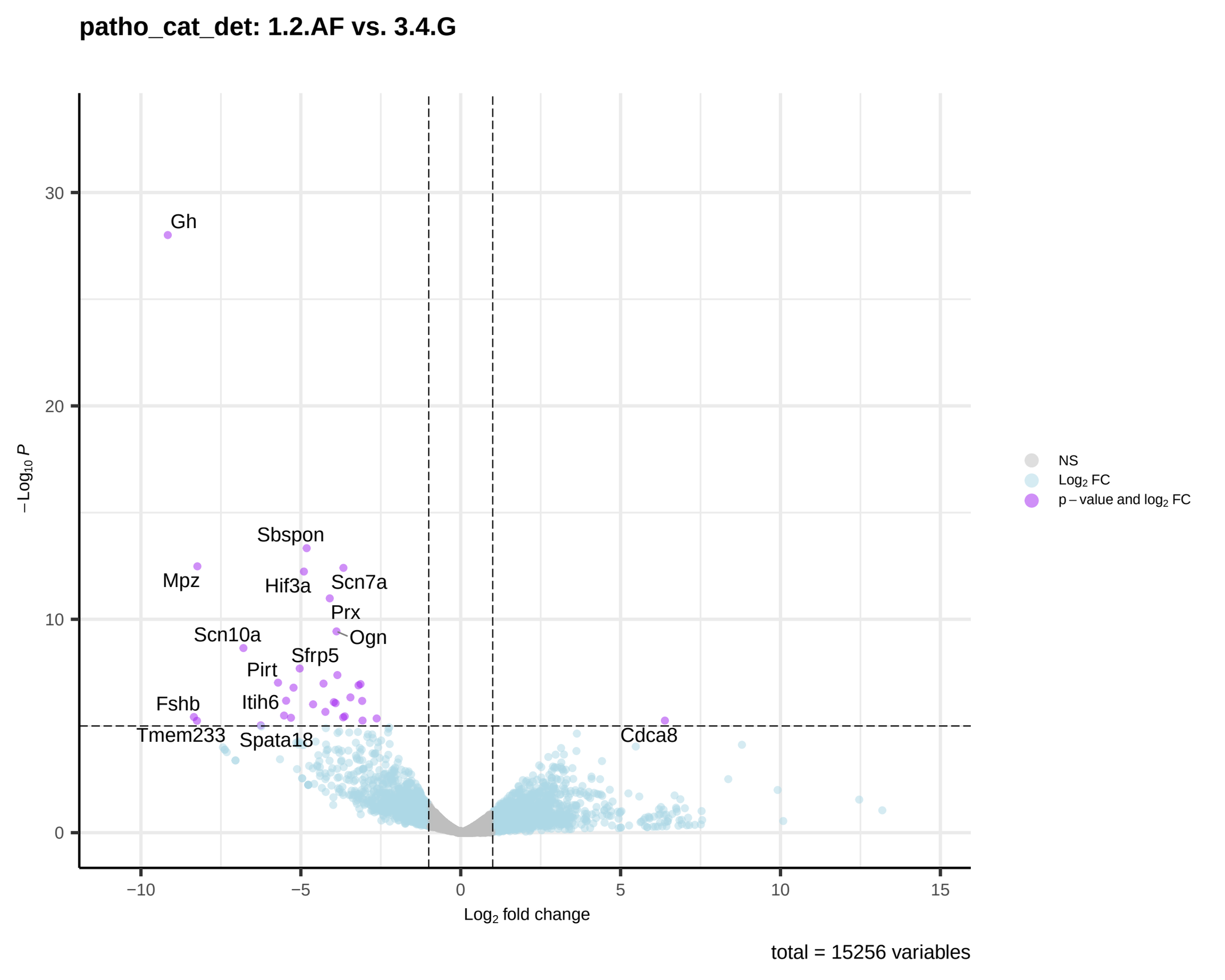
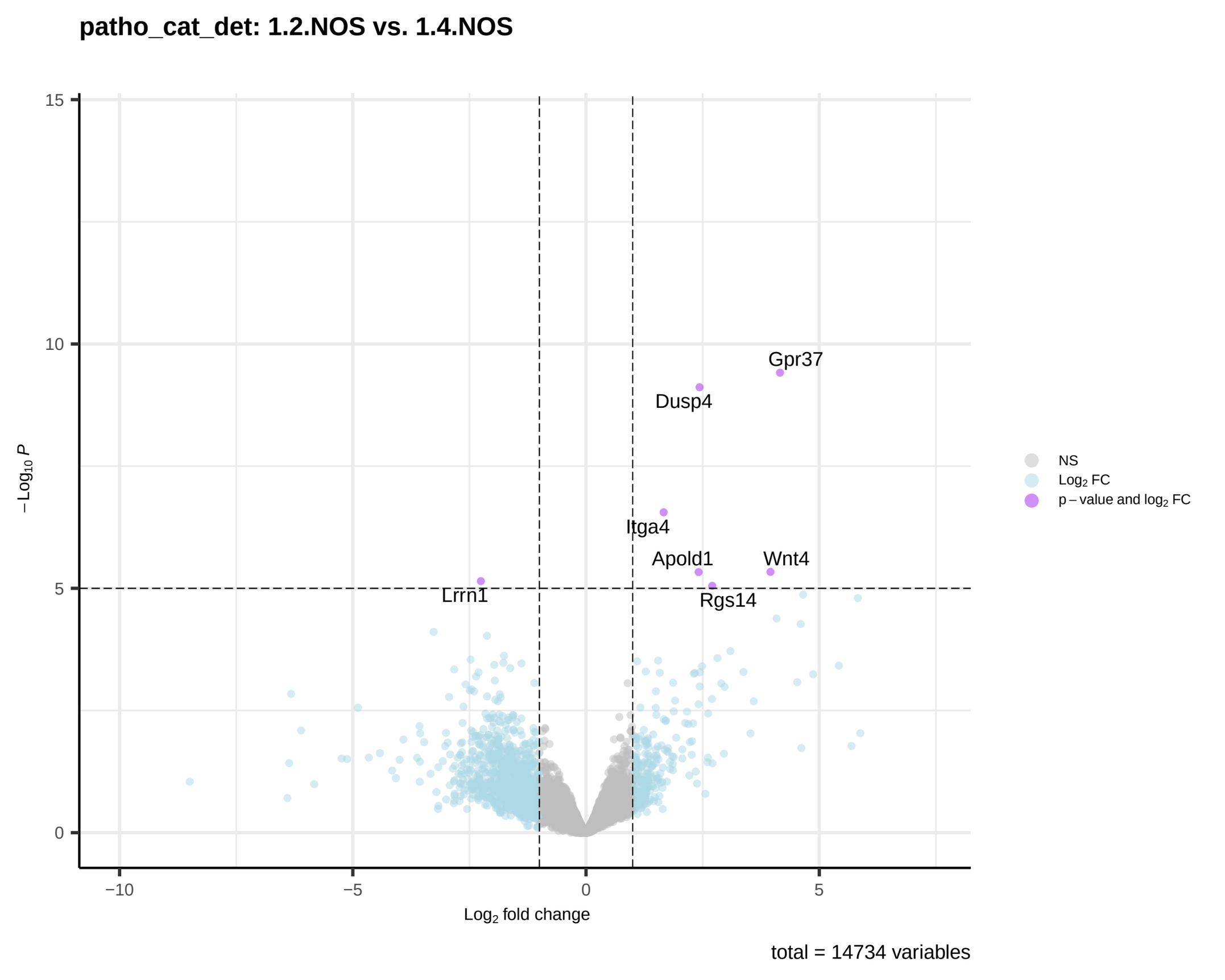

patho_cat_det: 1.2.AF vs. 1.2.NOS
Gh
Chn2
9630013A20Rik
St18
Myrf
Mycl
Nfasc
Dll1
Ppp1r16b
Kazn
Zfp365
Fshb
Cga
Xkr7
St8sia2
Lum
Zfp951
Smoc2
Pthlh
Prelp
40
20
0
−10
−5
0
5
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15528 variables

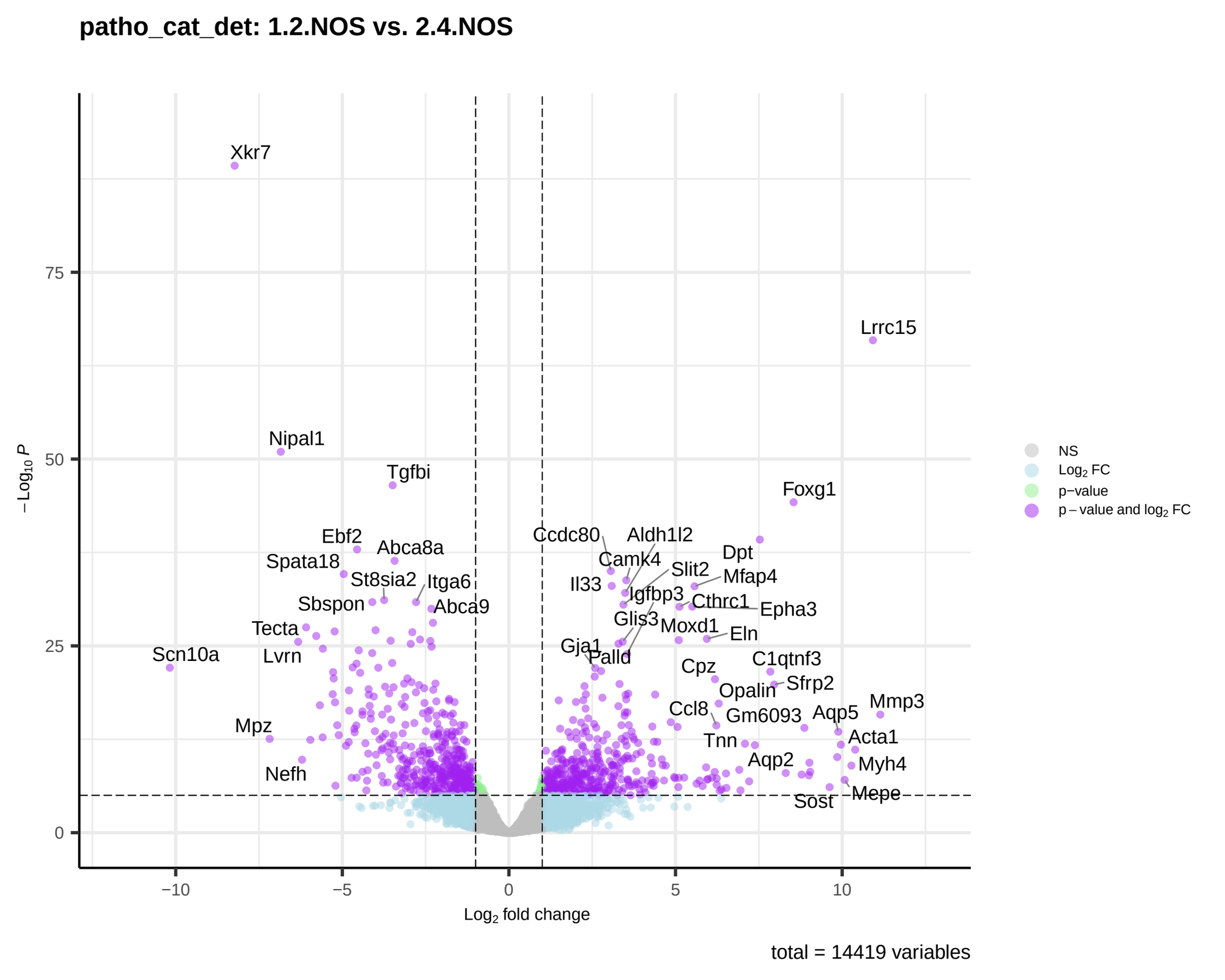

patho_cat_det: 1.2.AF vs. 1.4.NOS
Gh
Xist
Uty
Prl
Ddx3y
Eif2s3y
Nalf1
Nrxn2
Bcas1
Slc6a1
Kdm5d
Lars2
Mir9−3hg
B3gat1
Chst2
Enpp6
Tgfa
Csmd2
Cadm2
St8sia2
Mfap5
Meox2
Ripor2
Sfrp1
Prelp
Epyc
C1ql2
Uba1y
Ccnb3
Pthlh
Adam33
Cpa3
Gm28321
Twist2
40
20
0
−15
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p − value and $\log_2$ FC
total = 15254 variables

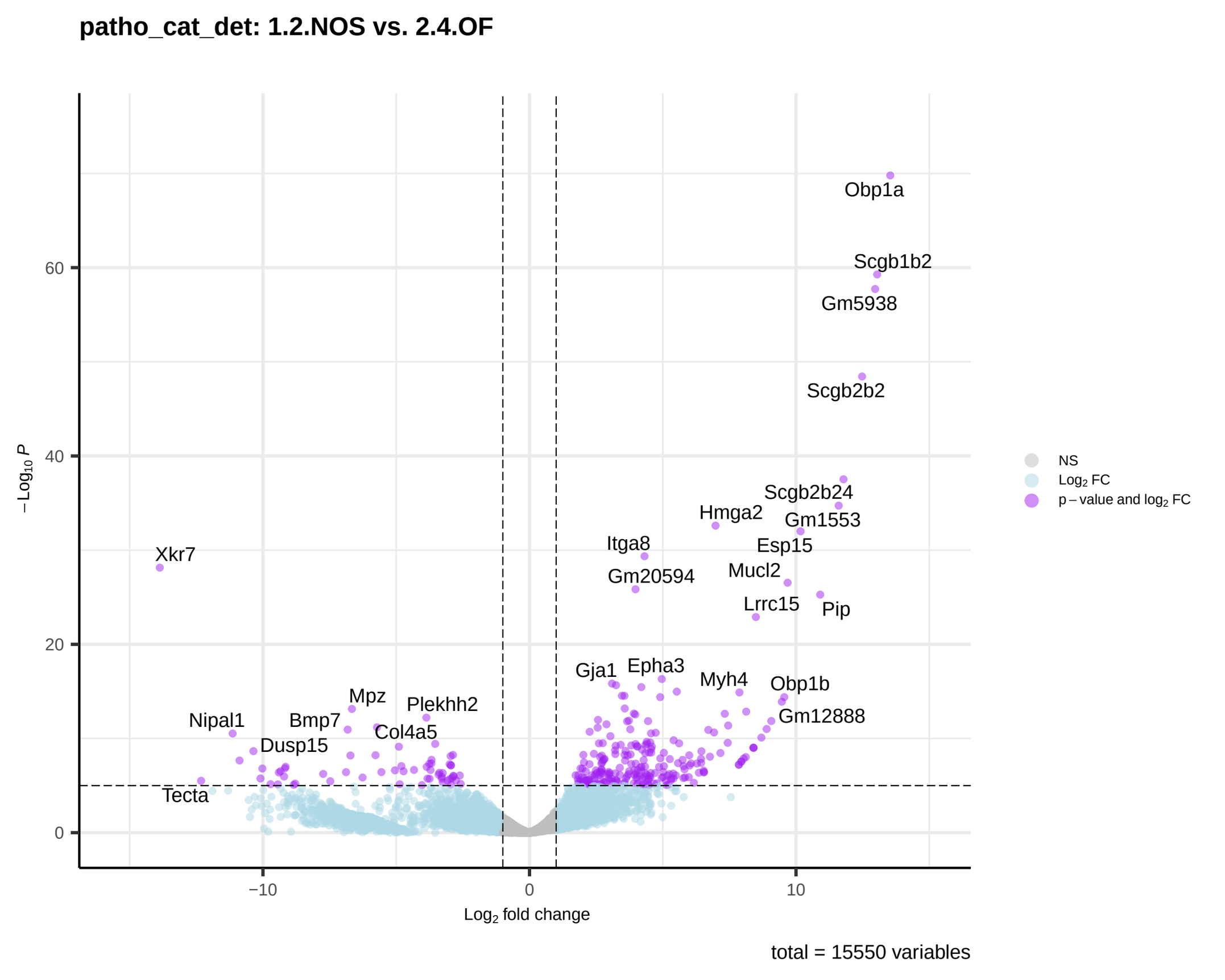

patho_cat_det: 1.2.AF vs. 2.4.NOS
Gh
Prl
Pcdh15
Scn3a
Abca6
Scn10a
Trpm8
Ccdc80
Tnc
Cilp
Lrrc15
Dpt
Prr33
Mfap4
Lsp1
Adam33
Cpz
C1qtnf3
75
50
25
0
−15
−10
−5
0
5
10
15
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 16037 variables

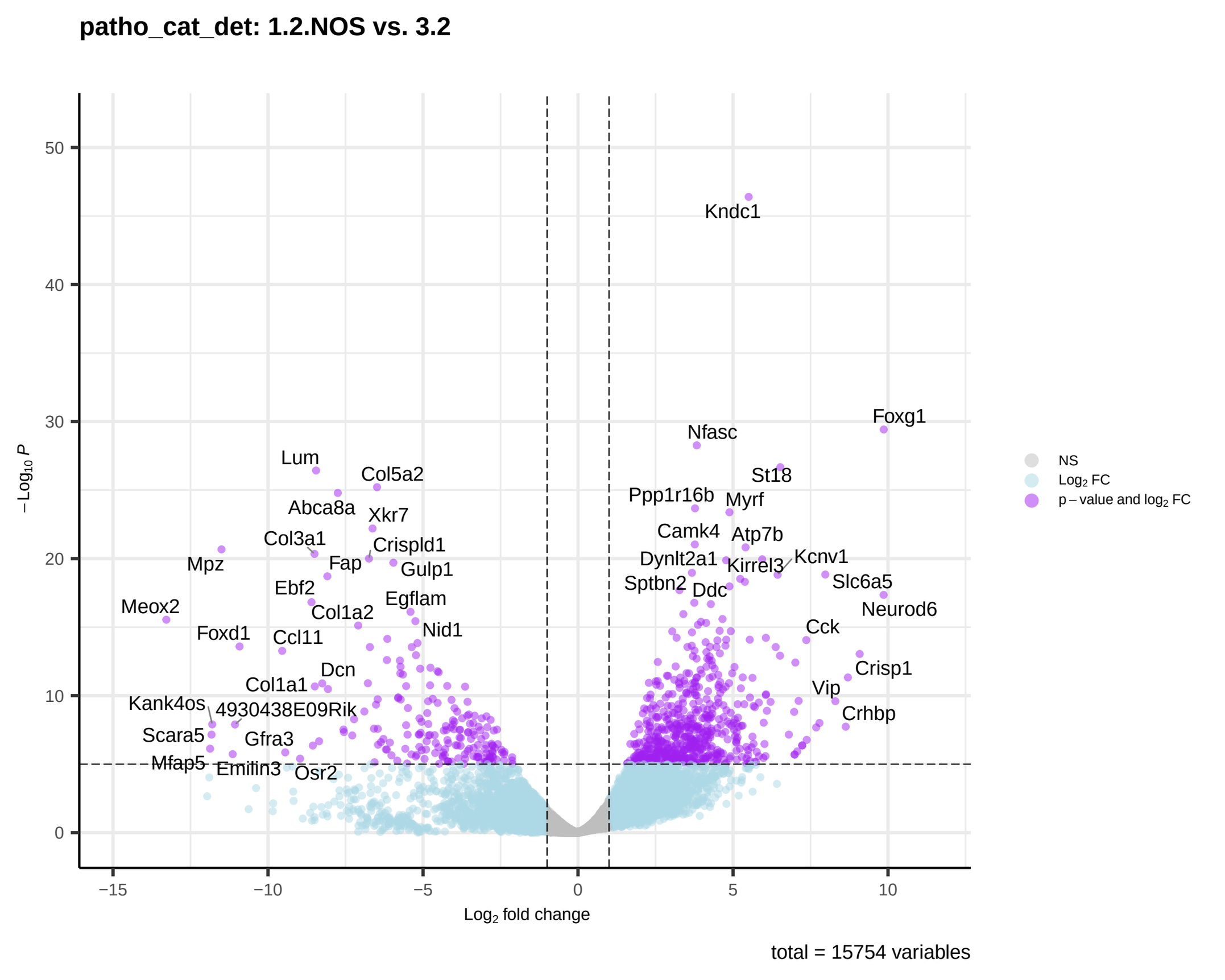

patho_cat_det: 1.2.AF vs. 3.3
Mpz
Gh
Prl
Dcn
Col28a1
Lvrn
Abca6
Kank4
Ogn
Sbspon
Prx
Lama2
Lum
Itpr3
Scara5
Abca8a
Shpk
Scn7a
Trank1
Nrgn
Scn10a
Meox2
Hpcal4
Itih6
Cxcl13
Bhmt
Tmem233
40
20
0
−15
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15513 variables

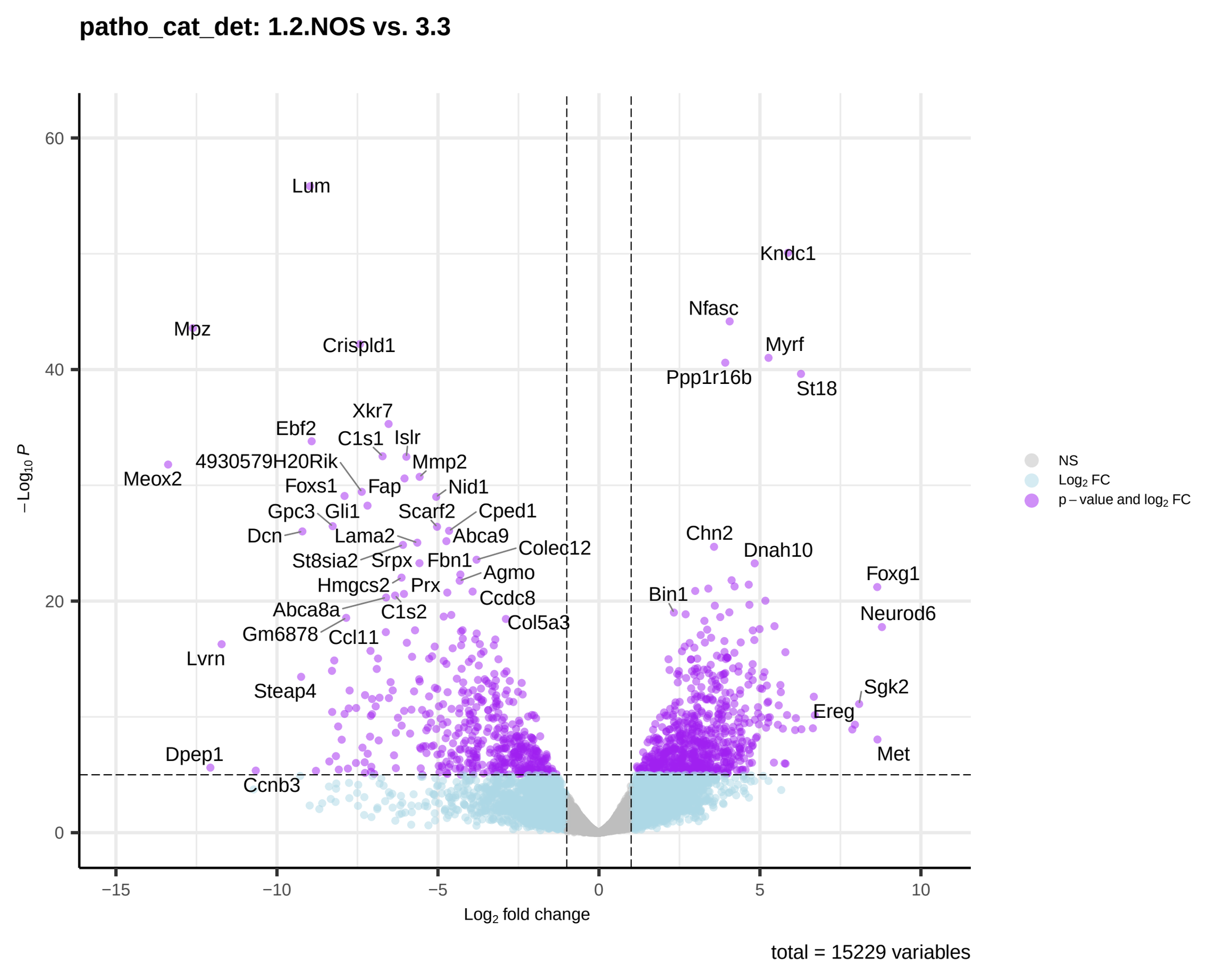

patho_cat_det: 1.2.AF vs. 3.4.G
Gh
Sbspon
Mpz
Hif3a
Scn7a
Prx
Scn10a
Ogn
Sfrp5
Pirt
Fshb
Itih6
Tmem233
Spata18
Cdca8
30
20
10
0
−10
−5
0
5
10
15
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15256 variables

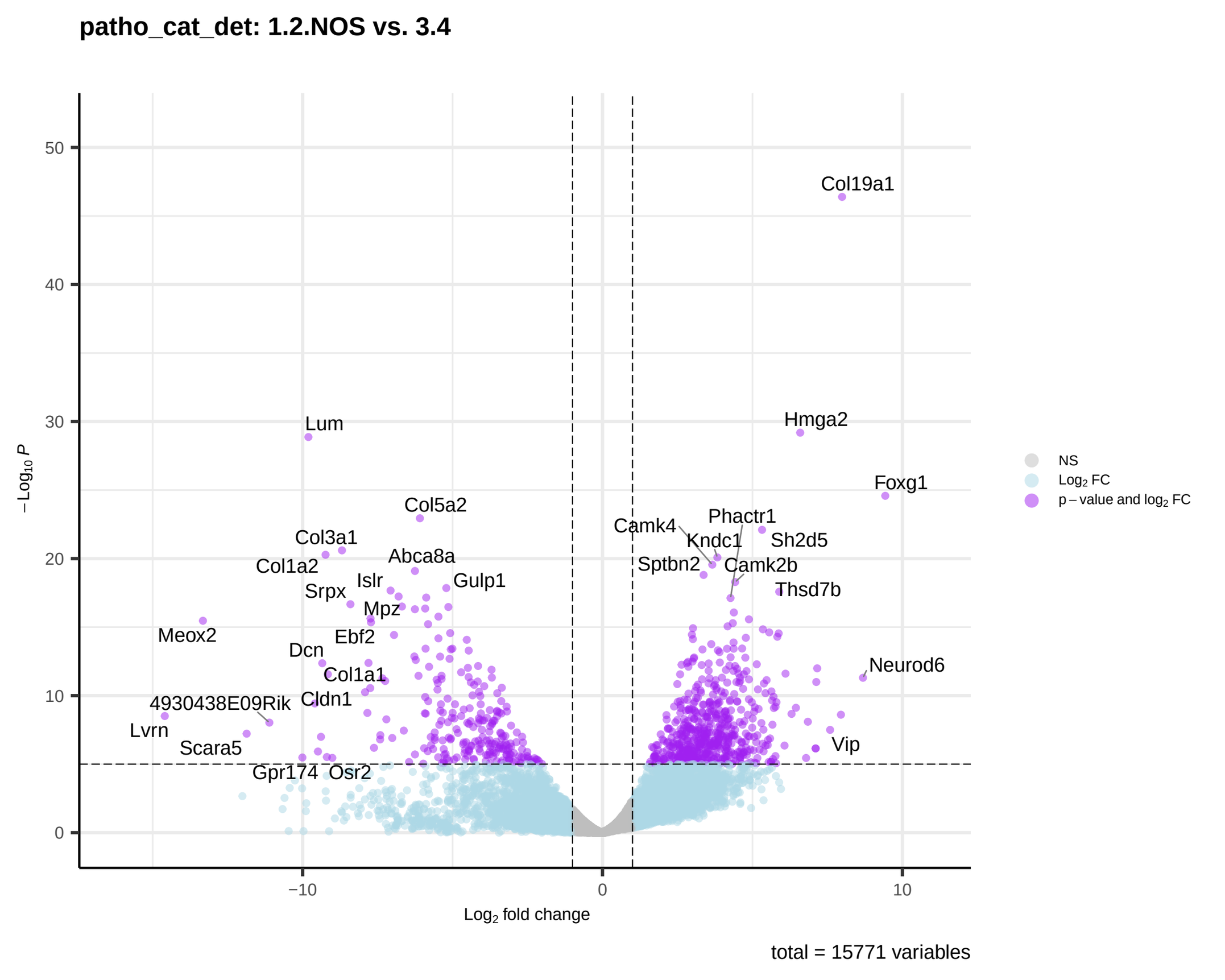

patho_cat_det: 1.2.NOS vs. 1.4.NOS
15
10
5
0
−Log10 P
Gpr37
Dusp4
Itga4
Apold1
Wnt4
Lrrn1
Rgs14
−10
−5
0
5
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 14734 variables

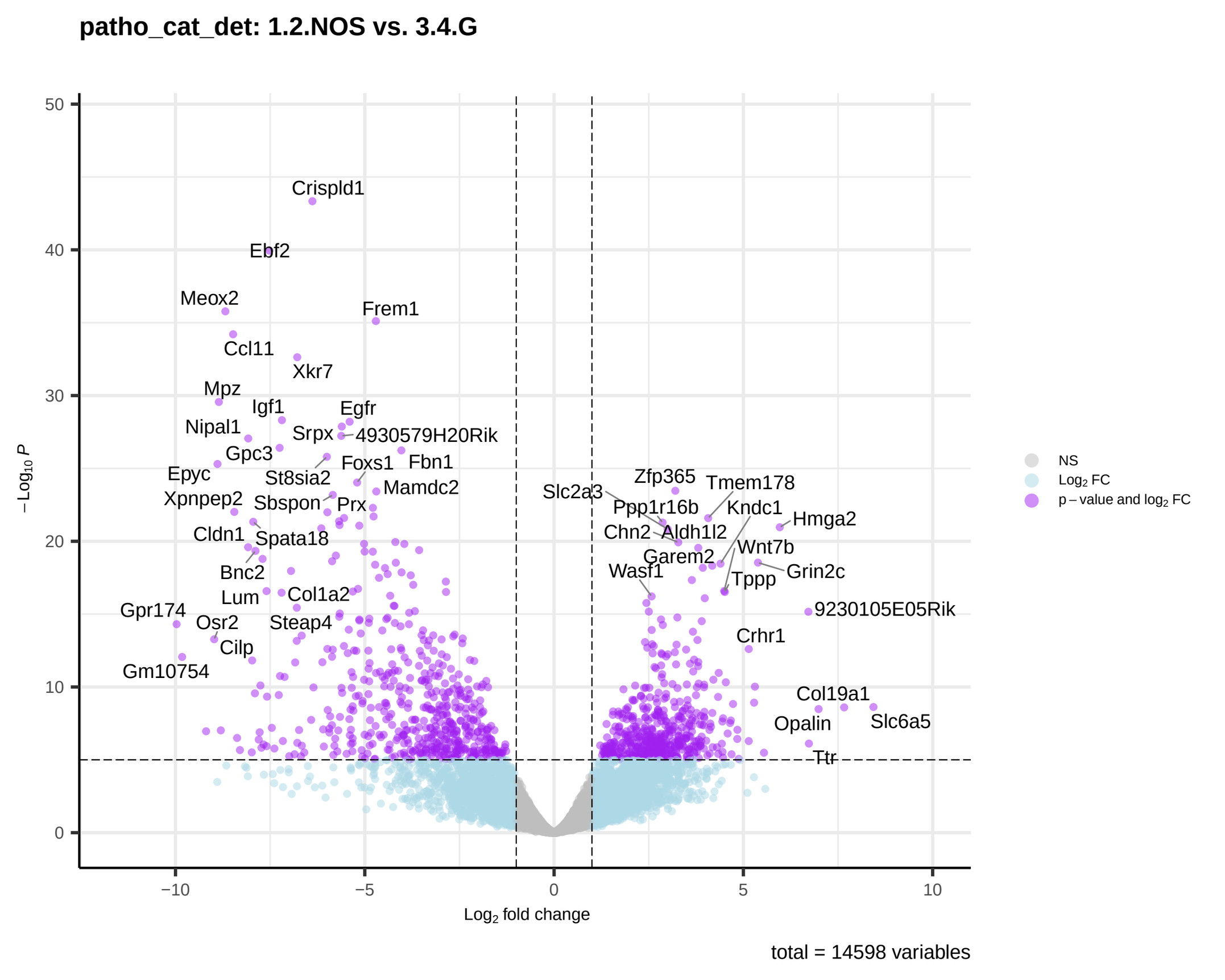

patho_cat_det: 1.2.NOS vs. 2.4.NOS
Xkr7
Lrrc15
Nipal1
Tgfbi
Foxg1
Ebf2
Abca8a
Spata18
St8sia2
Itga6
Sbspon
Abca9
Tecta
Scn10a
Lvrn
Mpz
Nefh
Ccdc80
Aldh1l2
Camk4
Dpt
Slit2
Mfap4
Il33
Igfbp3
Cthrc1
Epha3
Glis3
Moxd1
Eln
Gja1
Palld
C1qtnf3
Cpz
Sfrp2
Opalin
Ccl8
Gm6093
Aqp5
Mmp3
Tnn
Acta1
Aqp2
Myh4
Mepe
Sost
NS
Log2 FC
p−value
p − value and log2 FC
−Log10 P
Log2 fold change
total = 14419 variables

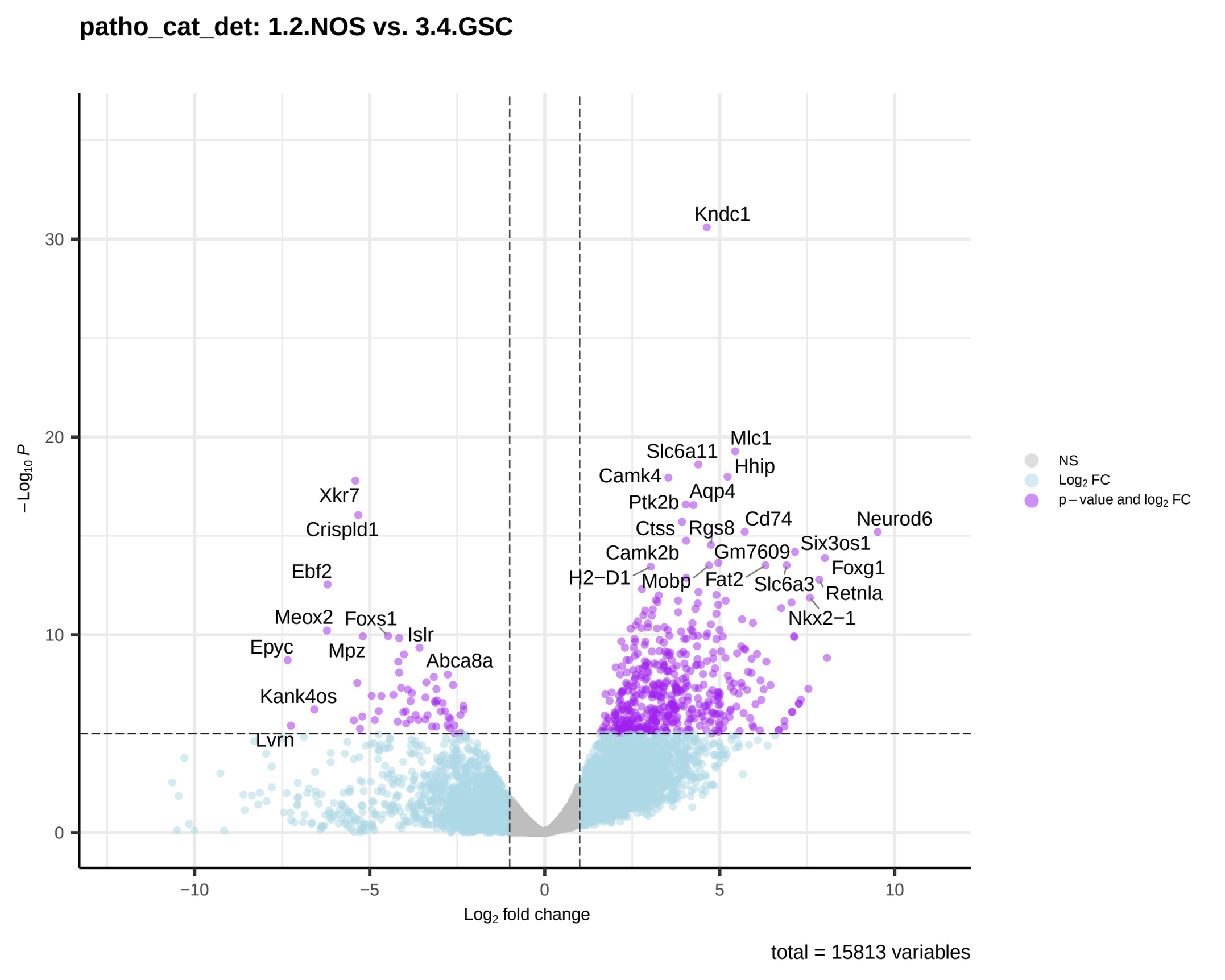

patho_cat_det: 1.2.NOS vs. 2.4.OF
Obp1a
Scgb1b2
Gm5938
Scgb2b2
Scgb2b24
Hmga2
Gm1553
Esp15
Itga8
Xkr7
Gm20594
Mucl2
Lrrc15
Pip
Gja1
Epha3
Myh4
Obp1b
Gm12888
Mpz
Plekhh2
Nipal1
Bmp7
Col4a5
Dusp15
Tecta
60
40
20
0
−10
0
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15550 variables

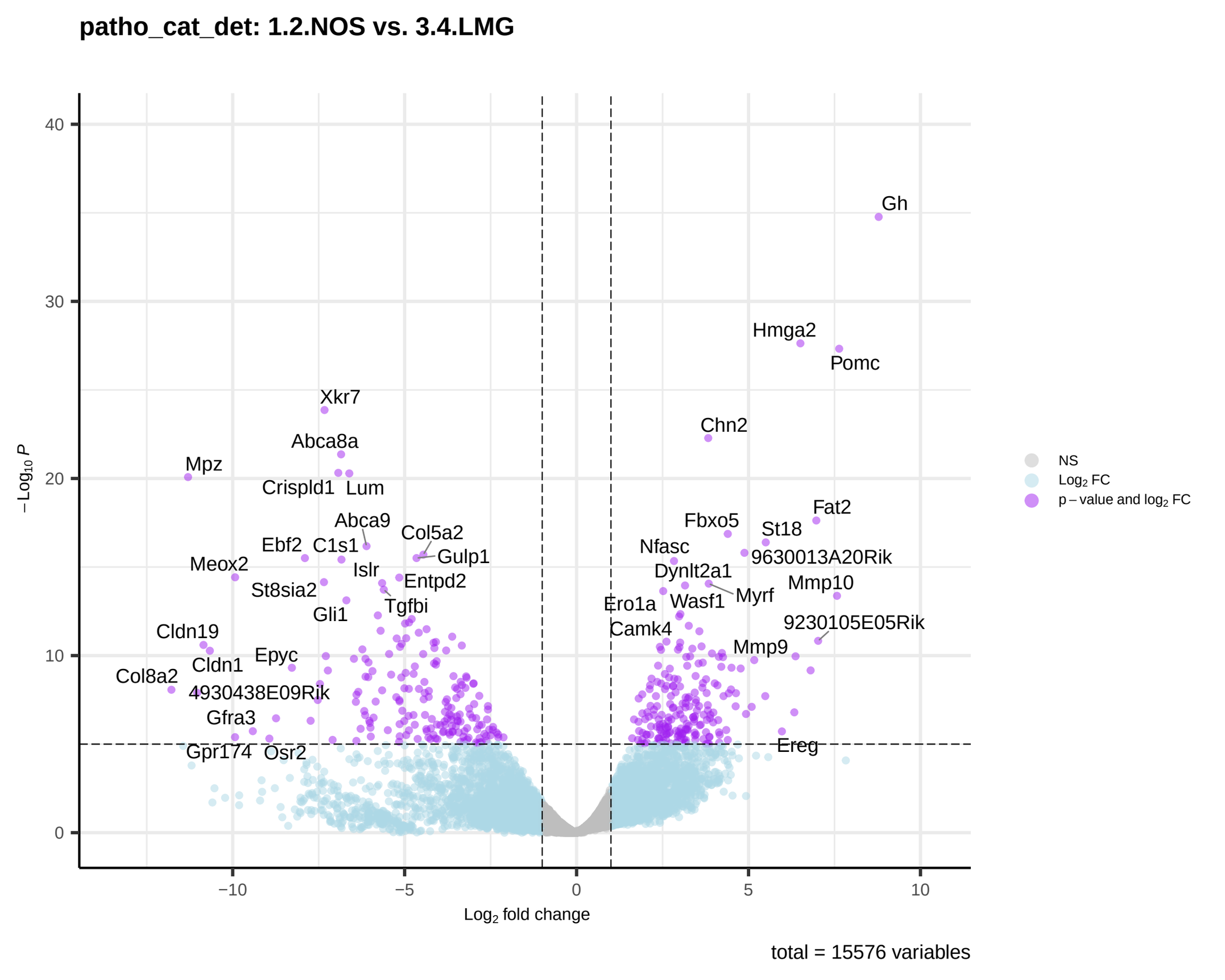

patho_cat_det: 1.2.NOS vs. 3.2
50
40
30
20
10
0
−Log10 P
−15
−10
−5
0
5
10
Log2 fold change
Kndc1
Foxg1
Nfasc
St18
Ppp1r16b
Myrf
Camk4
Atp7b
Dynlt2a1
Kirrel3
Kcnv1
Sptbn2
Ddc
Slc6a5
Neurod6
Cck
Crisp1
Vip
Crhbp
Lum
Col5a2
Abca8a
Xkr7
Col3a1
Crispld1
Mpz
Fap
Gulp1
Ebf2
Egflam
Meox2
Col1a2
Nid1
Foxd1
Ccl11
Dcn
Col1a1
Kank4os
4930438E09Rik
Scara5
Gfra3
Mfap5
Emilin3
Osr2
NS
Log2 FC
p – value and log2 FC
total = 15754 variables

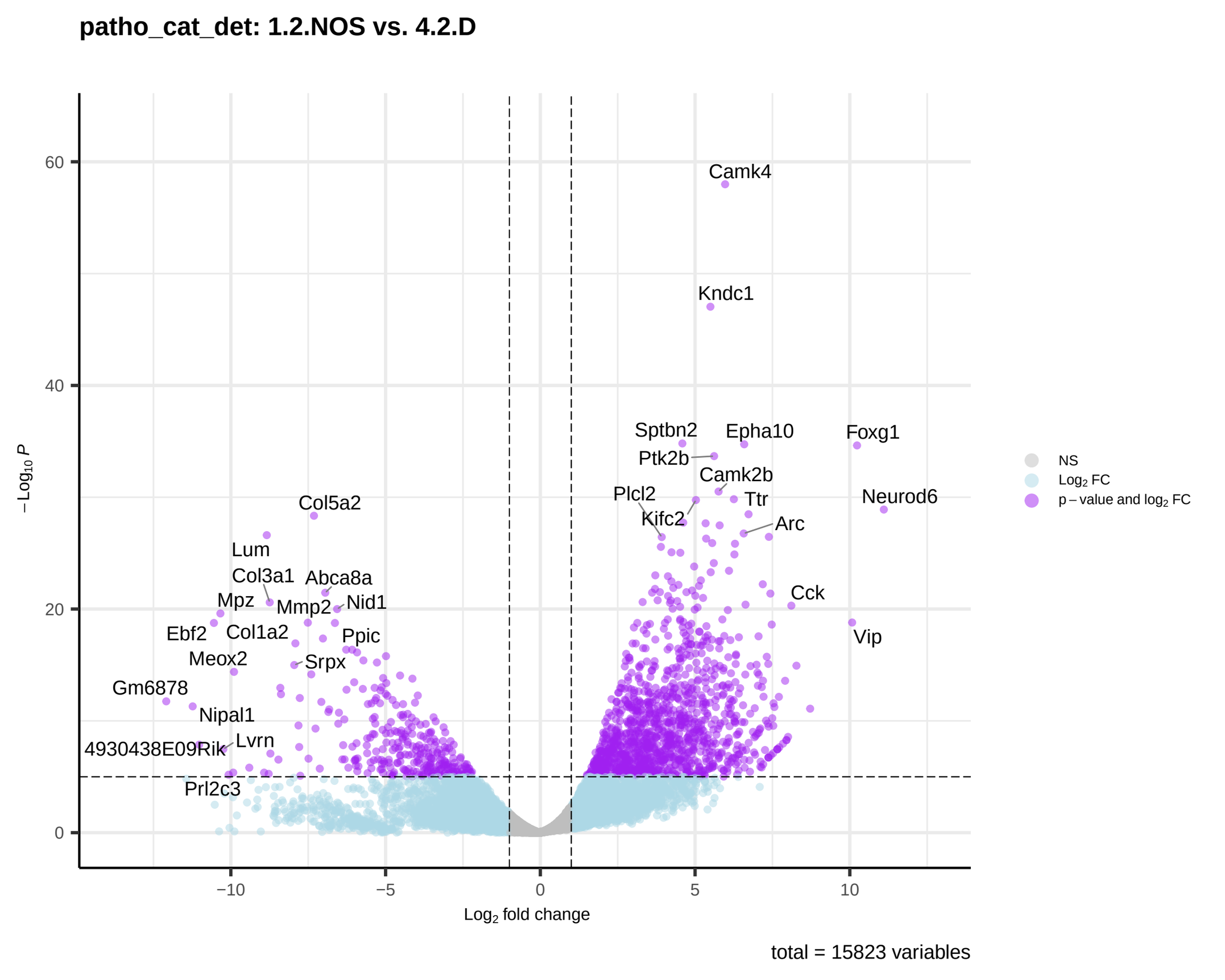

patho_cat_det: 1.2.NOS vs. 3.3
60
40
20
0
−Log10 P
Lum
Kndc1
Nfasc
Mpz
Crispld1
Myrf
Ppp1r16b
St18
Xkr7
Ebf2
C1s1
Islr
4930579H20Rik
Mmp2
Meox2
Foxs1
Fap
Nid1
Gpc3
Gli1
Scarf2
Cped1
Dcn
Lama2
Abca9
Chn2
Colec12
Dnah10
St8sia2
Srpx
Fbn1
Foxg1
Agmo
Hmgcs2
Prx
Bin1
Ccdc8
Abca8a
C1s2
Neurod6
Col5a3
Gm6878
Ccl11
Lvrn
Steap4
Sgk2
Ereg
Dpep1
Met
Ccnb3
−15
−10
−5
0
5
10
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 15229 variables

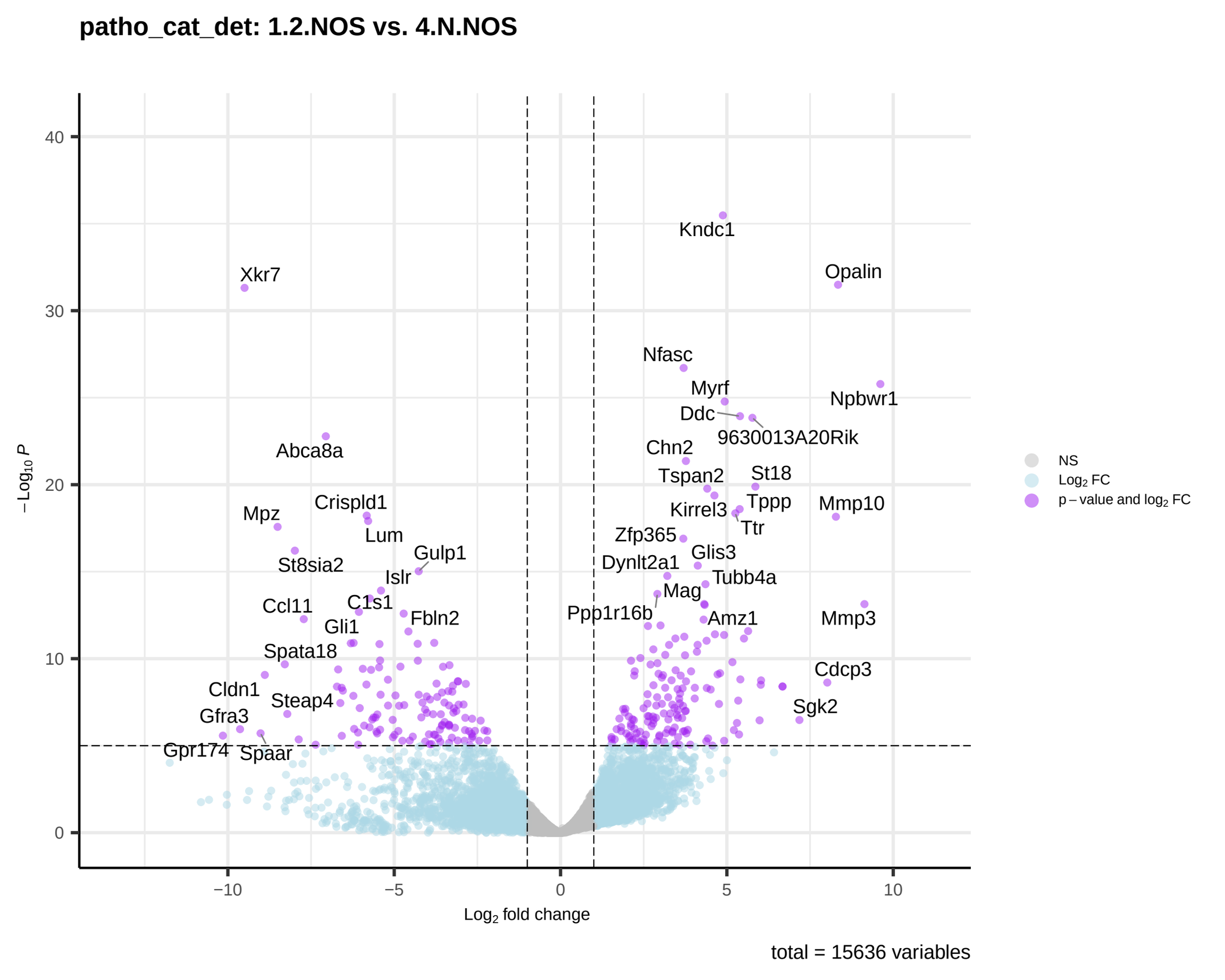

patho_cat_det: 1.2.NOS vs. 3.4
50
40
30
20
10
0
−Log10 P
Col19a1
Hmga2
Foxg1
Lum
Col5a2
Phactr1
Camk4
Kndc1
Sh2d5
Col3a1
Abca8a
Sptbn2
Camk2b
Col1a2
Islr
Gulp1
Thsd7b
Srpx
Mpz
Meox2
Ebf2
Dcn
Neurod6
Col1a1
4930438E09Rik
Cldn1
Lvrn
Scara5
Vip
Gpr174
Osr2
−10
0
10
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 15771 variables

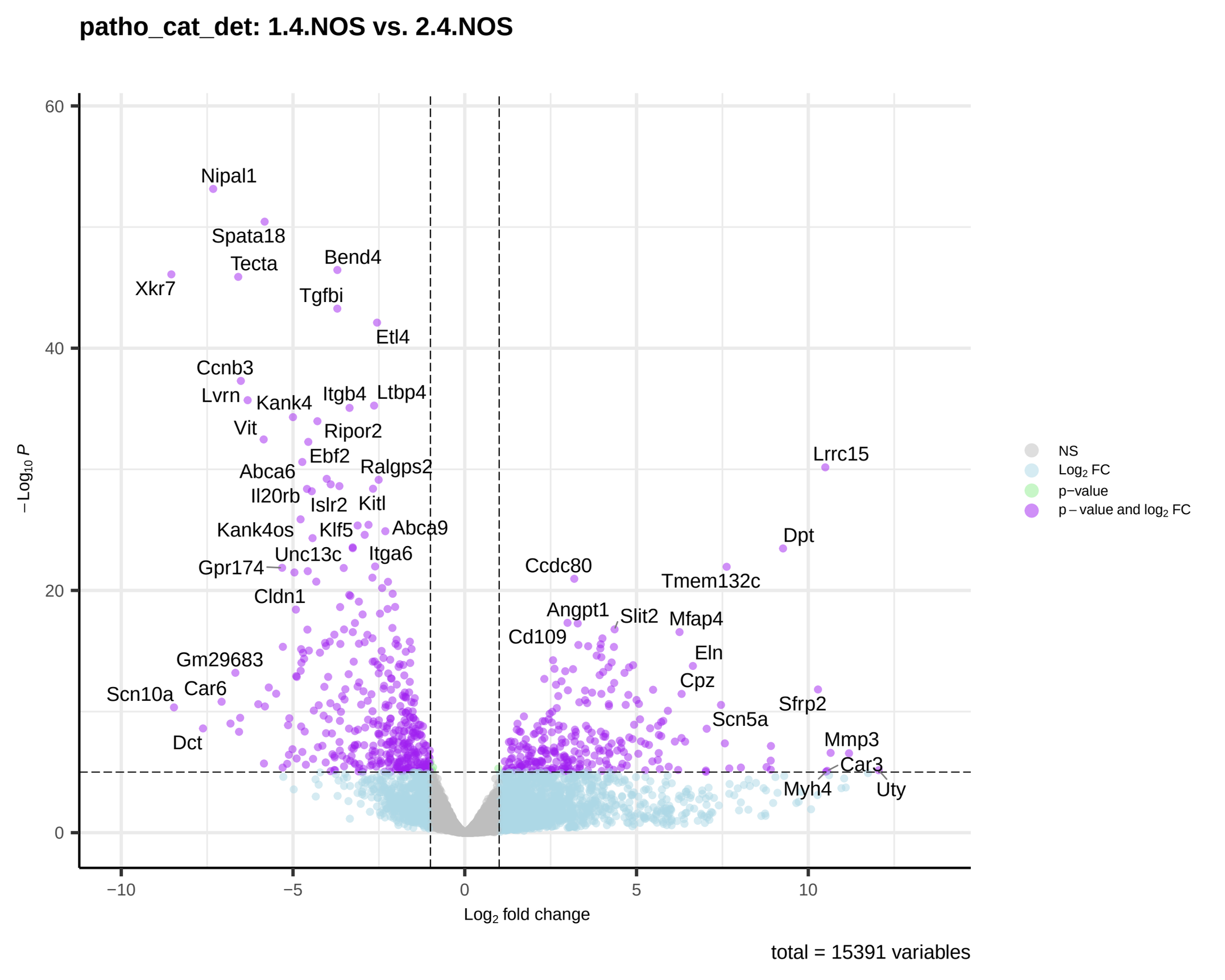

patho_cat_det: 1.2.NOS vs. 3.4.G
50
40
30
20
10
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Crispld1
Ebf2
Meox2
Frem1
Ccl11
Xkr7
Mpz
Igf1
Egfr
Nipal1
Srpx
4930579H20Rik
Gpc3
Foxs1
Fbn1
Epyc
St8sia2
Mamdc2
Xpnpep2
Sbspon
Prx
Cldn1
Spata18
Bnc2
Lum
Col1a2
Gpr174
Osr2
Steap4
Cilp
Gm10754
Slc2a3
Zfp365
Tmem178
Ppp1r16b
Kndc1
Hmga2
Chn2
Aldh1l2
Wnt7b
Garem2
Wasf1
Tppp
Grin2c
9230105E05Rik
Crhr1
Col19a1
Opalin
Slc6a5
Ttr
NS
Log2 FC
p – value and log2 FC
total = 14598 variables

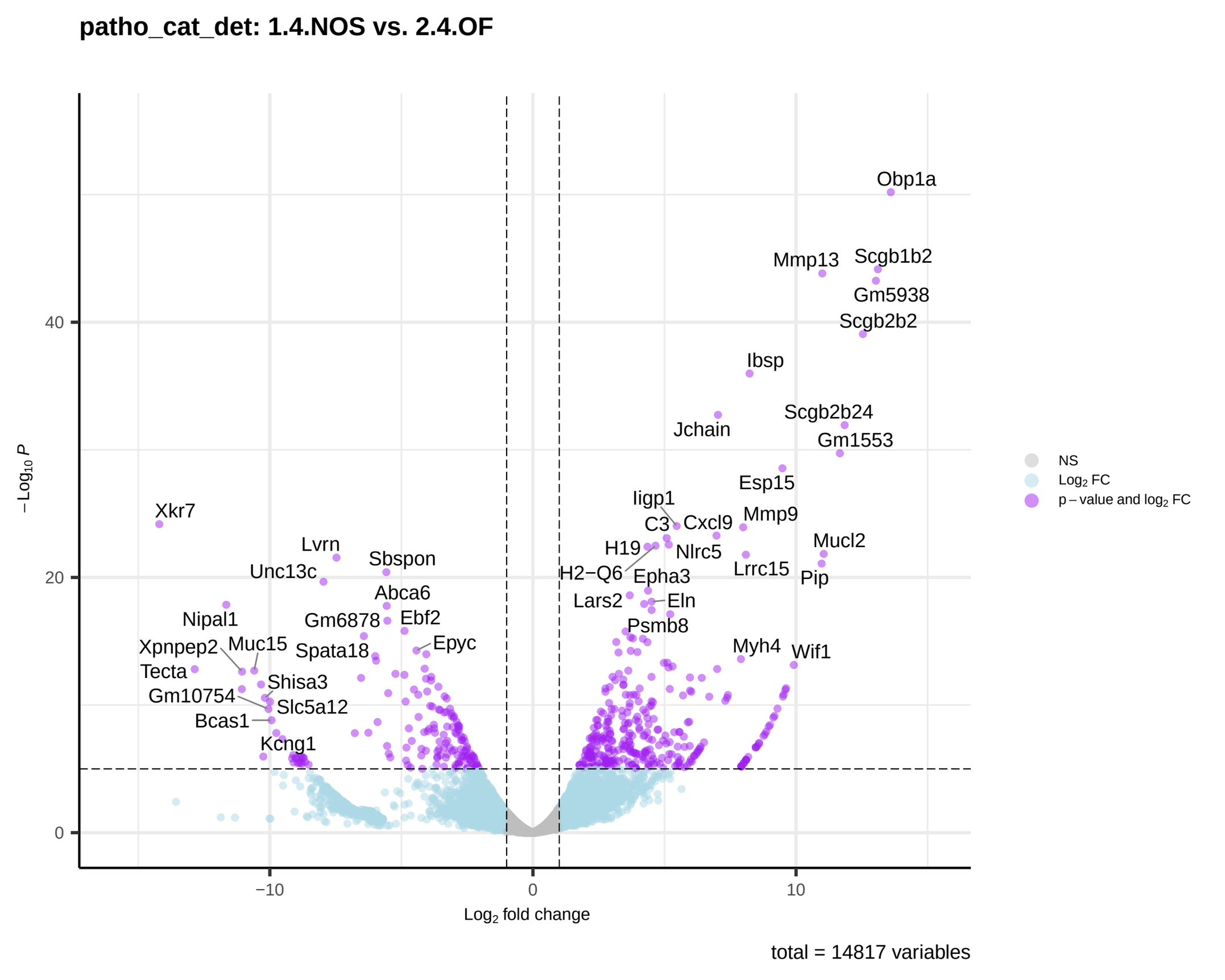

patho_cat_det: 1.2.NOS vs. 3.4.GSC
Kndc1
Mlc1
Slc6a11
Hhip
Camk4
Aqp4
Ptk2b
Cd74
Neurod6
Ctss
Rgs8
Six3os1
Camk2b
Gm7609
Foxg1
H2−D1
Mobp
Fat2
Slc6a3
Retnla
Nkx2−1
Xkr7
Crispld1
Ebf2
Meox2
Foxs1
Islr
Epyc
Mpz
Abca8a
Kank4os
Lvrn
NS
Log2 FC
p − value and log2 FC
30
20
10
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
total = 15813 variables

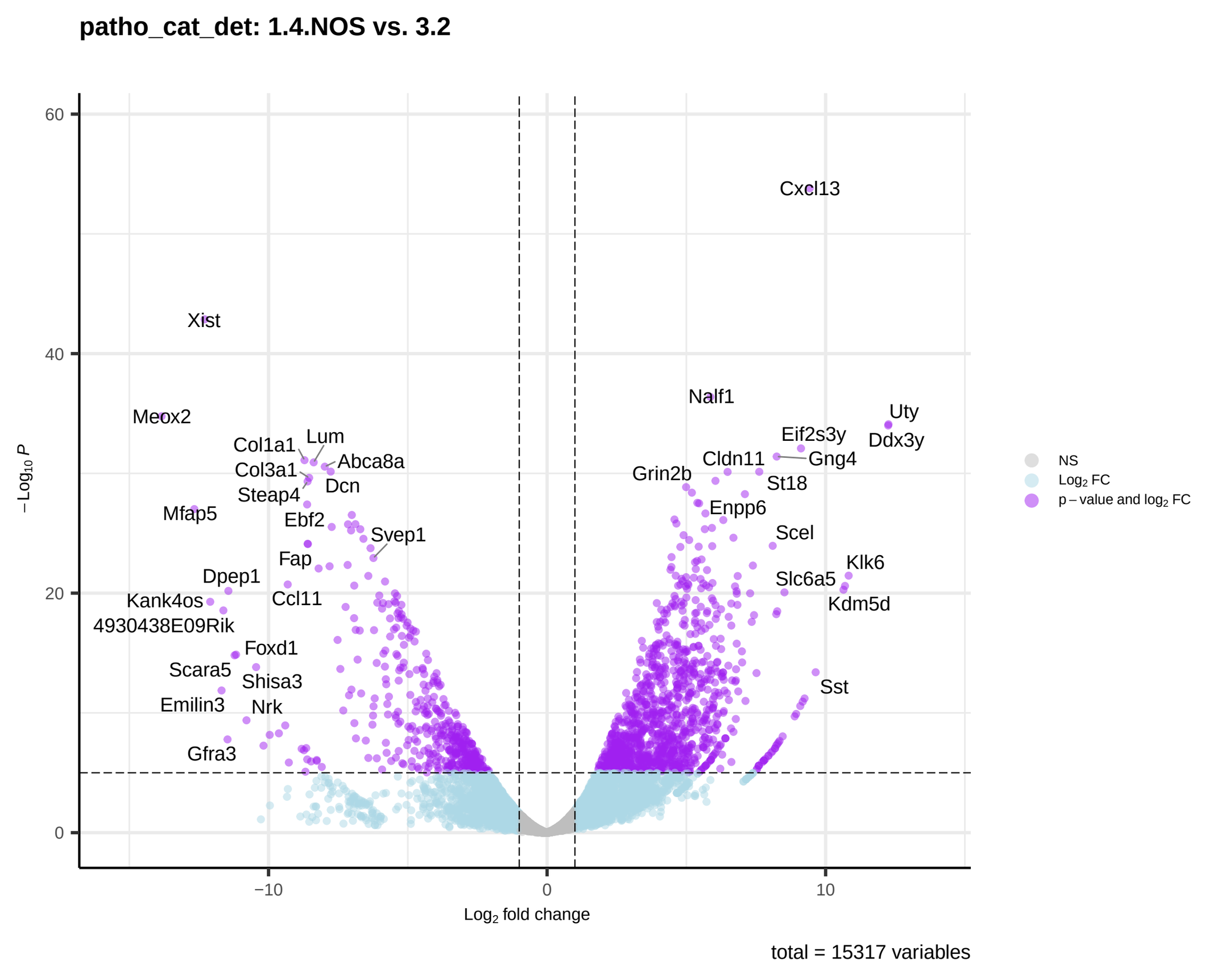

patho_cat_det: 1.2.NOS vs. 3.4.LMG
40
30
20
10
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Gh
Hmga2
Pomc
Xkr7
Chn2
Abca8a
Mpz
Crispld1
Lum
Fat2
Abca9
Fbxo5
St18
Col5a2
Ebf2
C1s1
Nfasc
Gulp1
9630013A20Rik
Meox2
Islr
Dynlt2a1
Entpd2
Mmp10
St8sia2
Myrf
Tgfbi
Ero1a
Wasf1
Gli1
9230105E05Rik
Camk4
Cldn19
Mmp9
Epyc
Cldn1
Col8a2
4930438E09Rik
Gfra3
Ereg
Gpr174
Osr2
NS
Log2 FC
p – value and log2 FC
total = 15576 variables

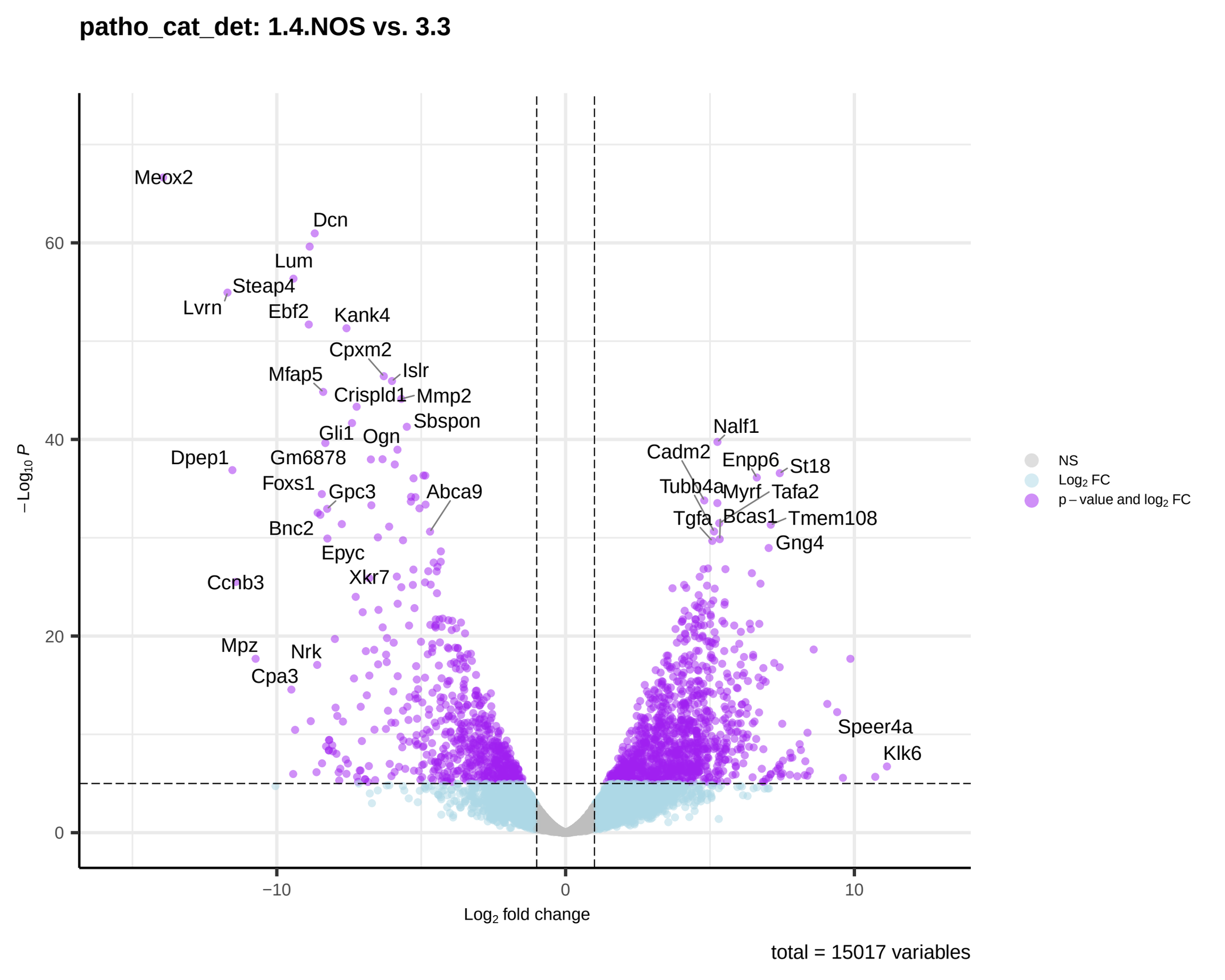

patho_cat_det: 1.2.NOS vs. 4.2.D
60
40
20
0
−Log10 P
Camk4
Kndc1
Sptbn2
Epha10
Foxg1
Ptk2b
Camk2b
Plcl2
Ttr
Neurod6
Kifc2
Arc
Col5a2
Lum
Col3a1
Abca8a
Mpz
Mmp2
Nid1
Cck
Ebf2
Col1a2
Ppic
Vip
Meox2
Srpx
Gm6878
Nipal1
4930438E09Rik
Lvrn
Prl2c3
−10
−5
0
5
10
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 15823 variables

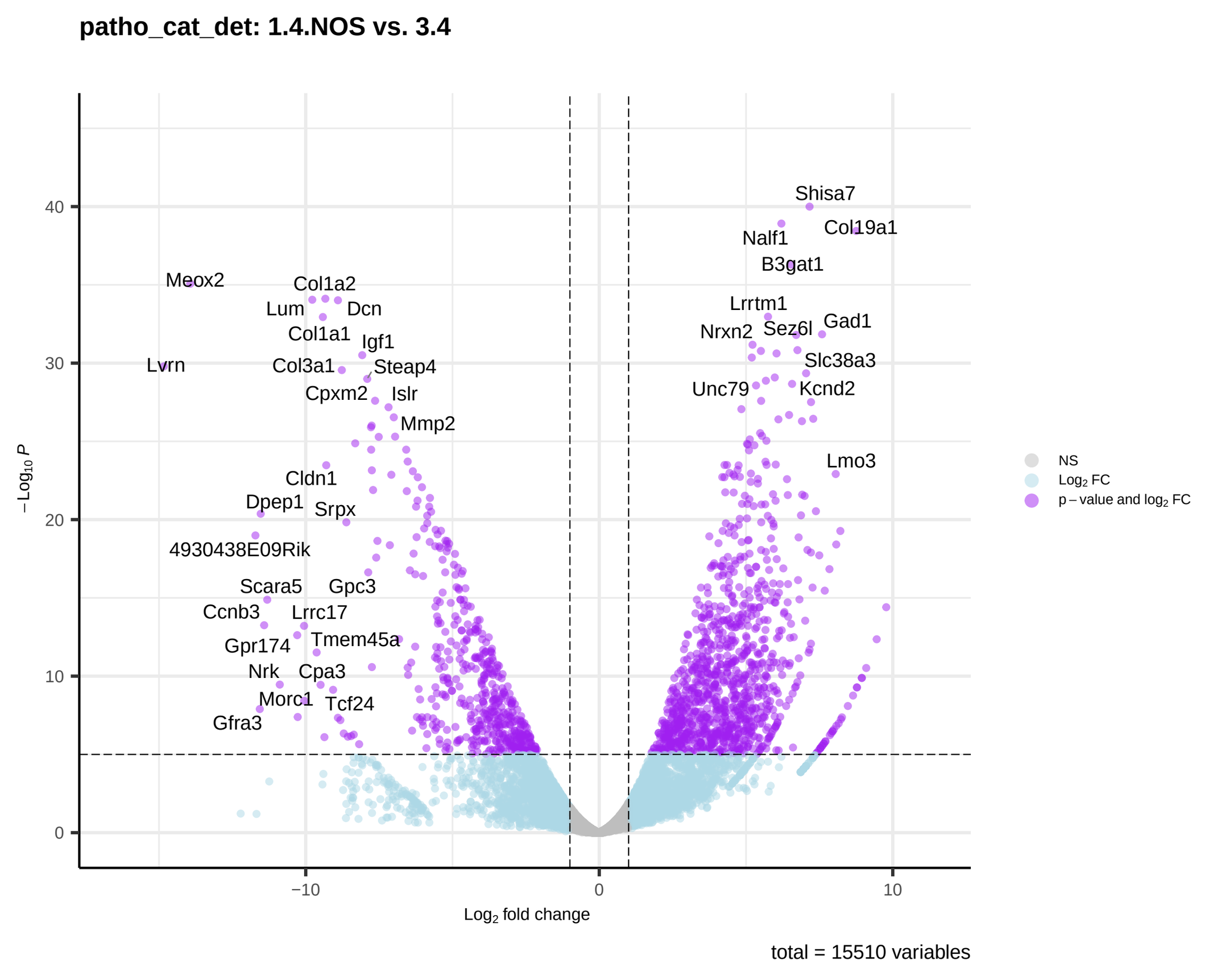

patho_cat_det: 1.2.NOS vs. 4.N.NOS
Kndc1
Opalin
Xkr7
Nfasc
Myrf
Npbwr1
Ddc
9630013A20Rik
Abca8a
Chn2
Tspan2
St18
Tppp
Mmp10
Crispld1
Mpz
Kirrel3
Ttr
Lum
Zfp365
Gulp1
Glis3
St8sia2
Dynlt2a1
Islr
Tubb4a
Mag
C1s1
Ccl11
Ppp1r16b
Amz1
Mmp3
Fbln2
Gli1
Spata18
Cdcp3
Cldn1
Steap4
Sgk2
Gfra3
Gpr174
Spaar
NS
Log2 FC
p – value and log2 FC
−Log10 P
Log2 fold change
total = 15636 variables

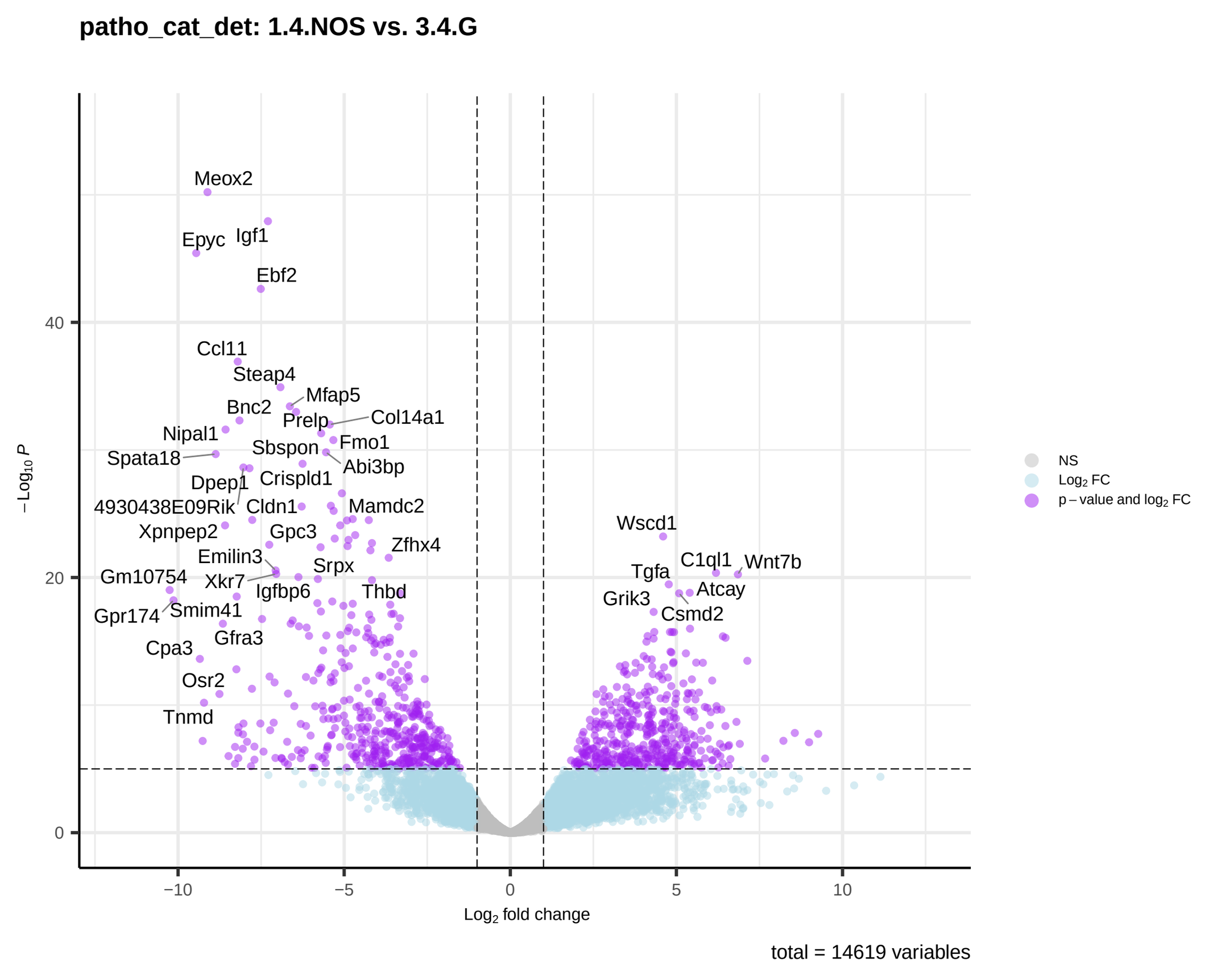

patho_cat_det: 1.4.NOS vs. 2.4.NOS
60
40
20
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Nipal1
Spata18
Tecta
Bend4
Xkr7
Tgfbi
Etl4
Ccnb3
Lvrn
Kank4
Itgb4
Ltbp4
Vit
Ripor2
Ebf2
Abca6
Ralgps2
Il20rb
Islr2
Kitl
Kank4os
Klf5
Abca9
Unc13c
Itga6
Gpr174
Cldn1
Gm29683
Scn10a
Car6
Dct
Lrrc15
Dpt
Ccdc80
Tmem132c
Angpt1
Slit2
Mfap4
Cd109
Eln
Cpz
Sfrp2
Scn5a
Mmp3
Car3
Myh4
Uty
NS
Log2 FC
p−value
p – value and log2 FC
total = 15391 variables

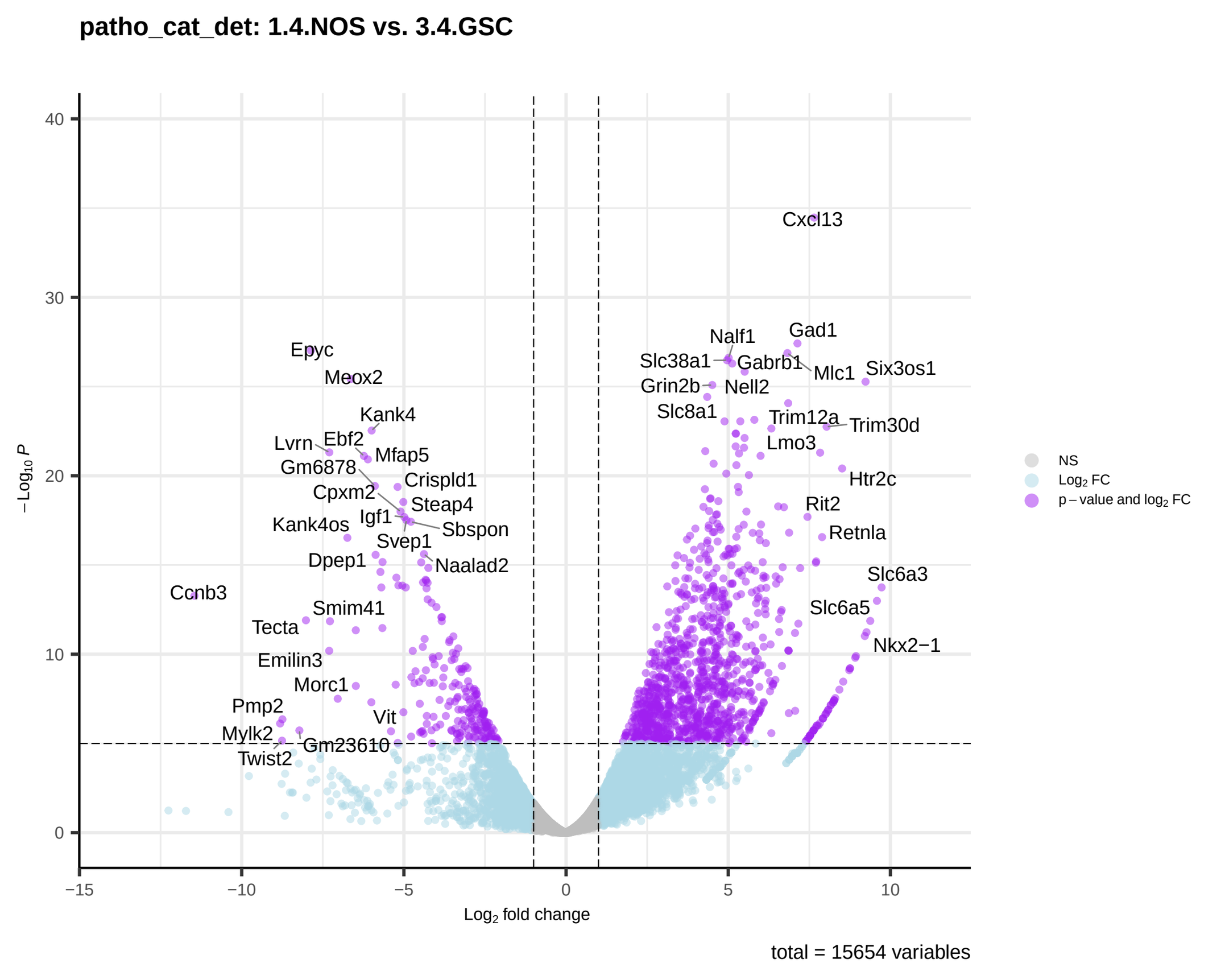

patho_cat_det: 1.4.NOS vs. 2.4.OF
Obp1a
Mmp13
Scgb1b2
Gm5938
Scgb2b2
Ibsp
Scgb2b24
Jchain
Gm1553
Esp15
Iigp1
Xkr7
C3
Cxcl9
Mmp9
Mucl2
Lvrn
H19
Nlrc5
Sbspon
Unc13c
Lrrc15
Pip
H2−Q6
Epha3
Abca6
Lars2
Eln
Nipal1
Gm6878
Ebf2
Psmb8
Xpnpep2
Muc15
Spata18
Epyc
Myh4
Wif1
Tecta
Shisa3
Gm10754
Slc5a12
Bcas1
Kcng1
NS
Log2 FC
p – value and log2 FC
40
20
0
−Log10 P
−10
0
10
Log2 fold change
total = 14817 variables

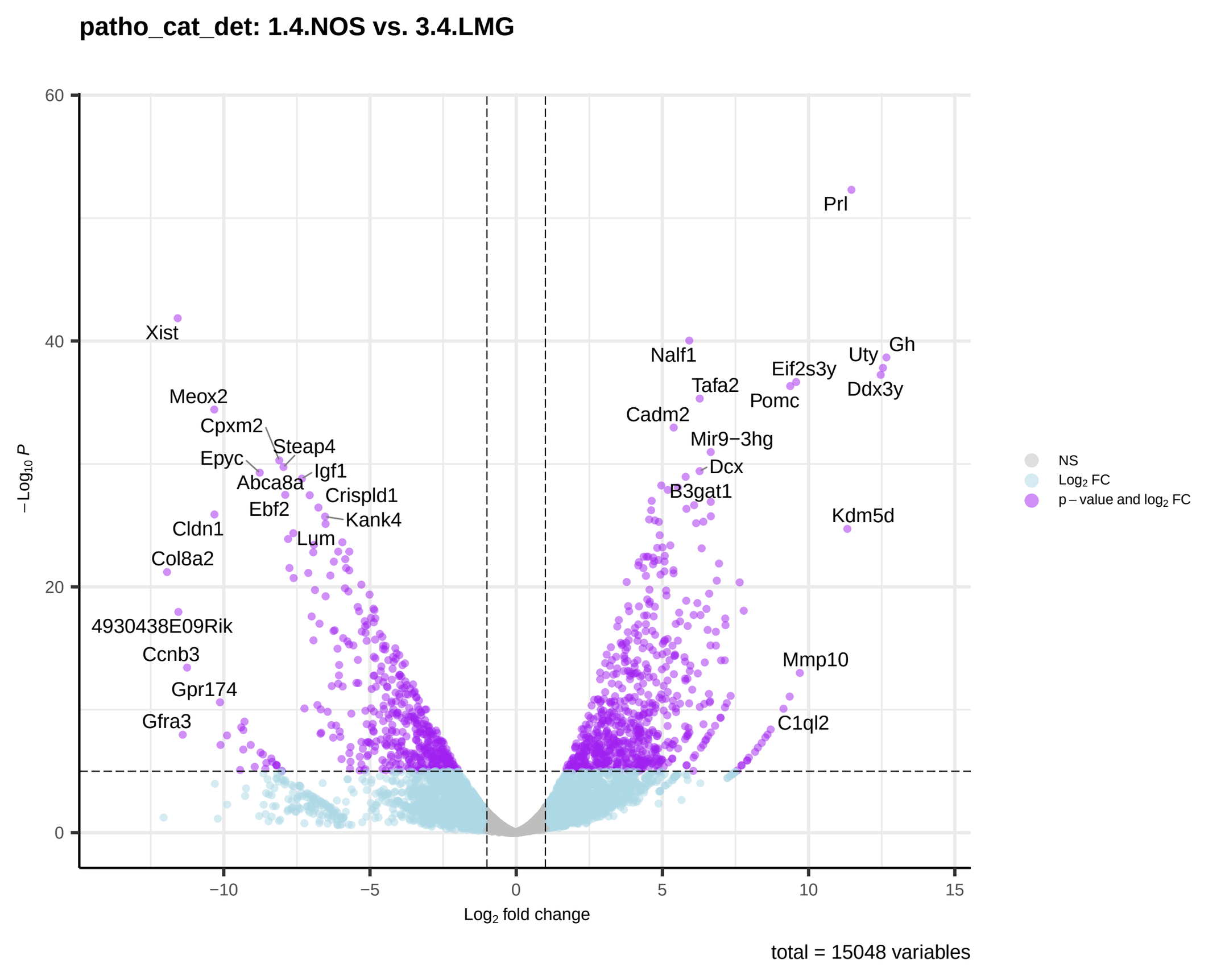

patho_cat_det: 1.4.NOS vs. 3.2
60
40
20
0
−Log10 P
Cxcl13
Xist
Meox2
Nalf1
Uty
Ddx3y
Eif2s3y
Col1a1
Lum
Abca8a
Col3a1
Dcn
Steap4
Cldn11
Gng4
Grin2b
St18
Enpp6
Mfap5
Ebf2
Svep1
Scel
Fap
Klk6
Dpep1
Slc6a5
Kank4os
Ccl11
Kdm5d
4930438E09Rik
Foxd1
Scara5
Shisa3
Sst
Emilin3
Nrk
Gfra3
−10
0
10
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15317 variables

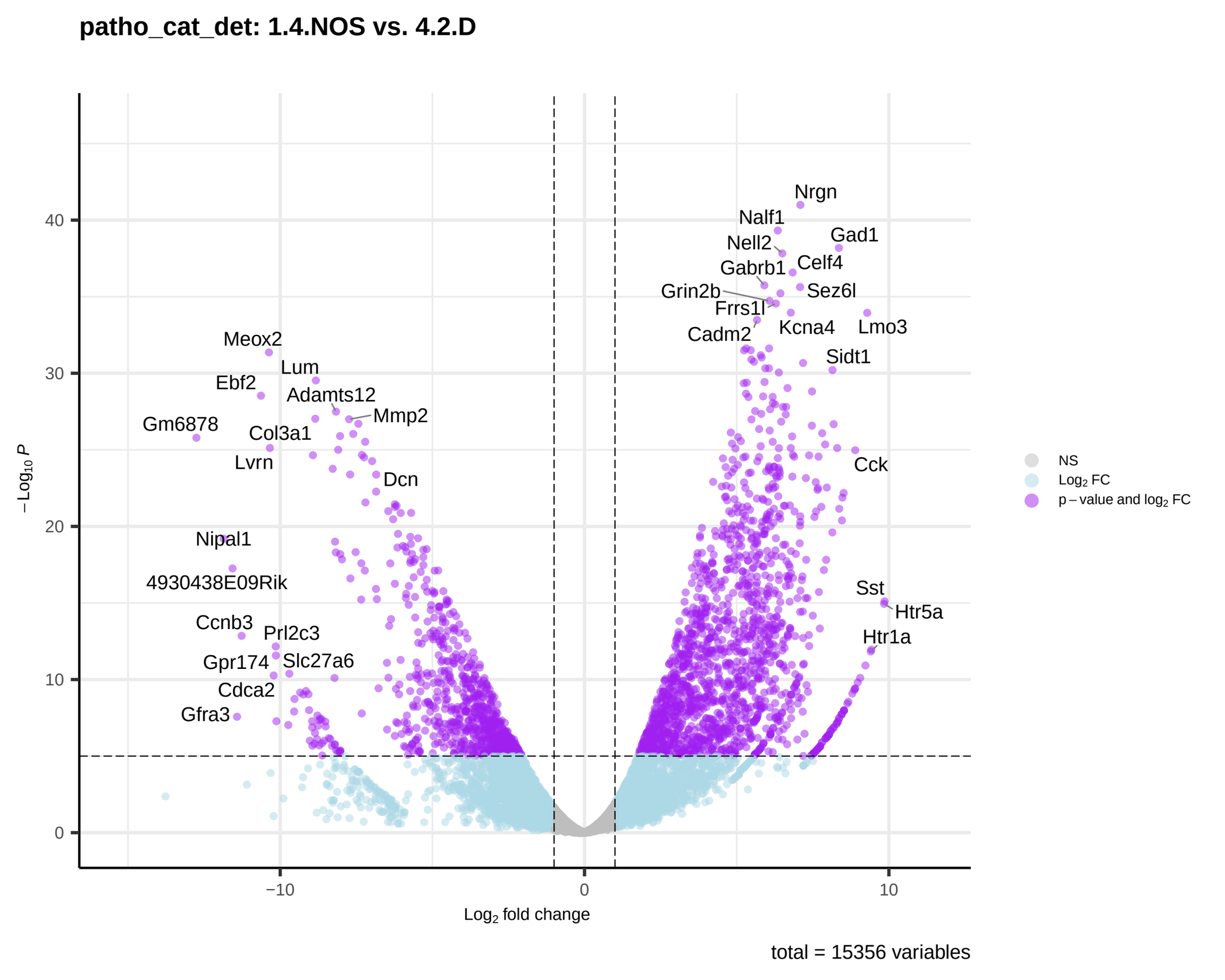

patho_cat_det: 1.4.NOS vs. 3.3
Meox2
Dcn
Lum
Steap4
Lvrn
Ebf2
Kank4
Cpxm2
Mfap5
Islr
Crispld1
Mmp2
Sbspon
Gli1
Ogn
Dpep1
Gm6878
Foxs1
Gpc3
Abca9
Bnc2
Epyc
Xkr7
Ccnb3
Mpz
Nrk
Cpa3
Nalf1
Cadm2
Enpp6
St18
Tubb4a
Myrf
Tafa2
Tgfa
Bcas1
Tmem108
Gng4
Speer4a
Klk6
60
40
20
0
−10
0
10
$-\mathrm{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15017 variables

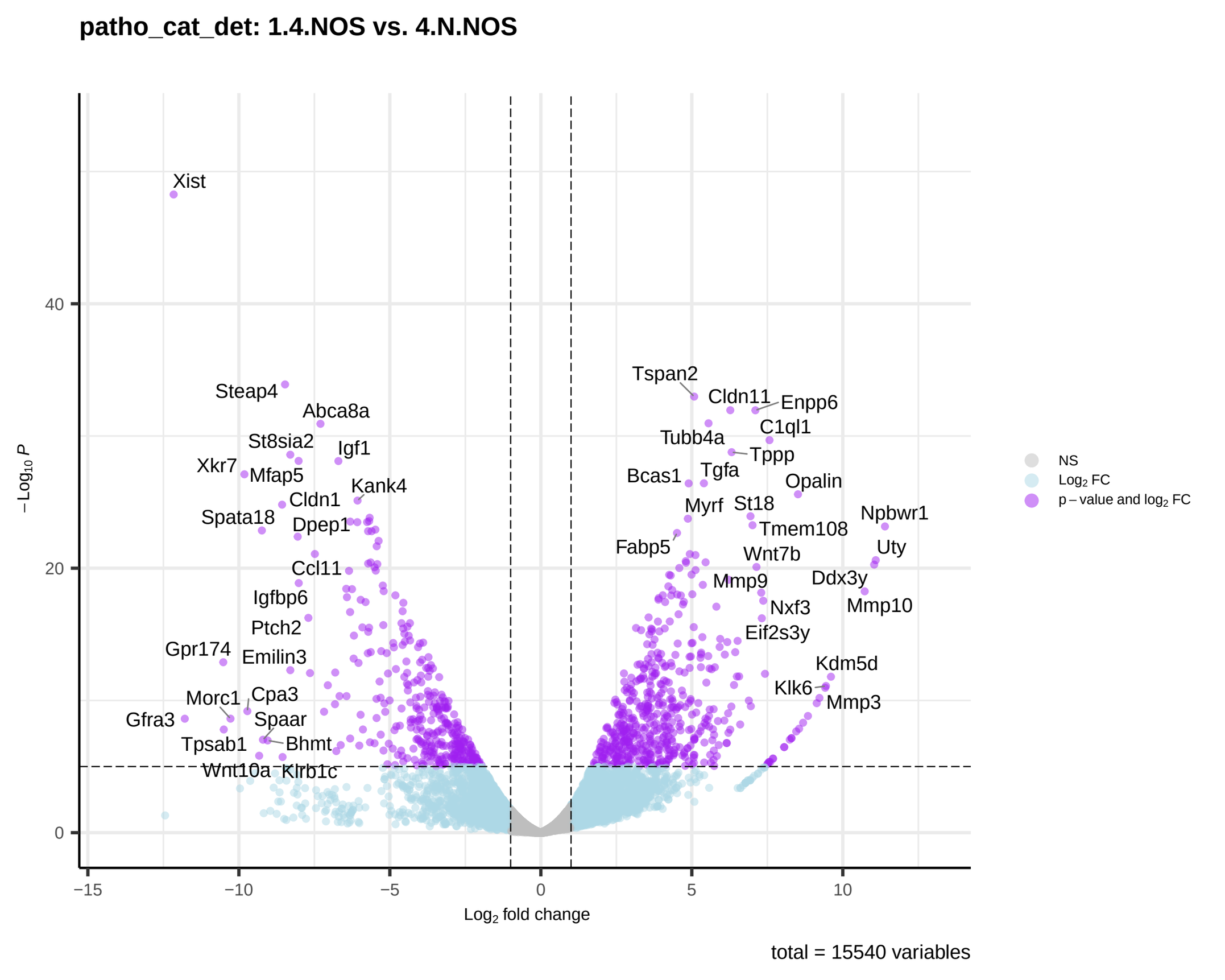

patho_cat_det: 1.4.NOS vs. 3.4
Shisa7
Col19a1
Nalf1
B3gat1
Meox2
Col1a2
Lum
Dcn
Col1a1
Igf1
Lrrtm1
Nrxn2
Sez6l
Gad1
Lvrn
Col3a1
Steap4
Slc38a3
Cpxm2
Islr
Unc79
Kcnd2
Mmp2
Lmo3
Cldn1
Dpep1
Srpx
4930438E09Rik
Scara5
Gpc3
Ccnb3
Lrrc17
Gpr174
Tmem45a
Nrk
Cpa3
Morc1
Tcf24
Gfra3
40
30
20
10
0
−10
0
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15510 variables

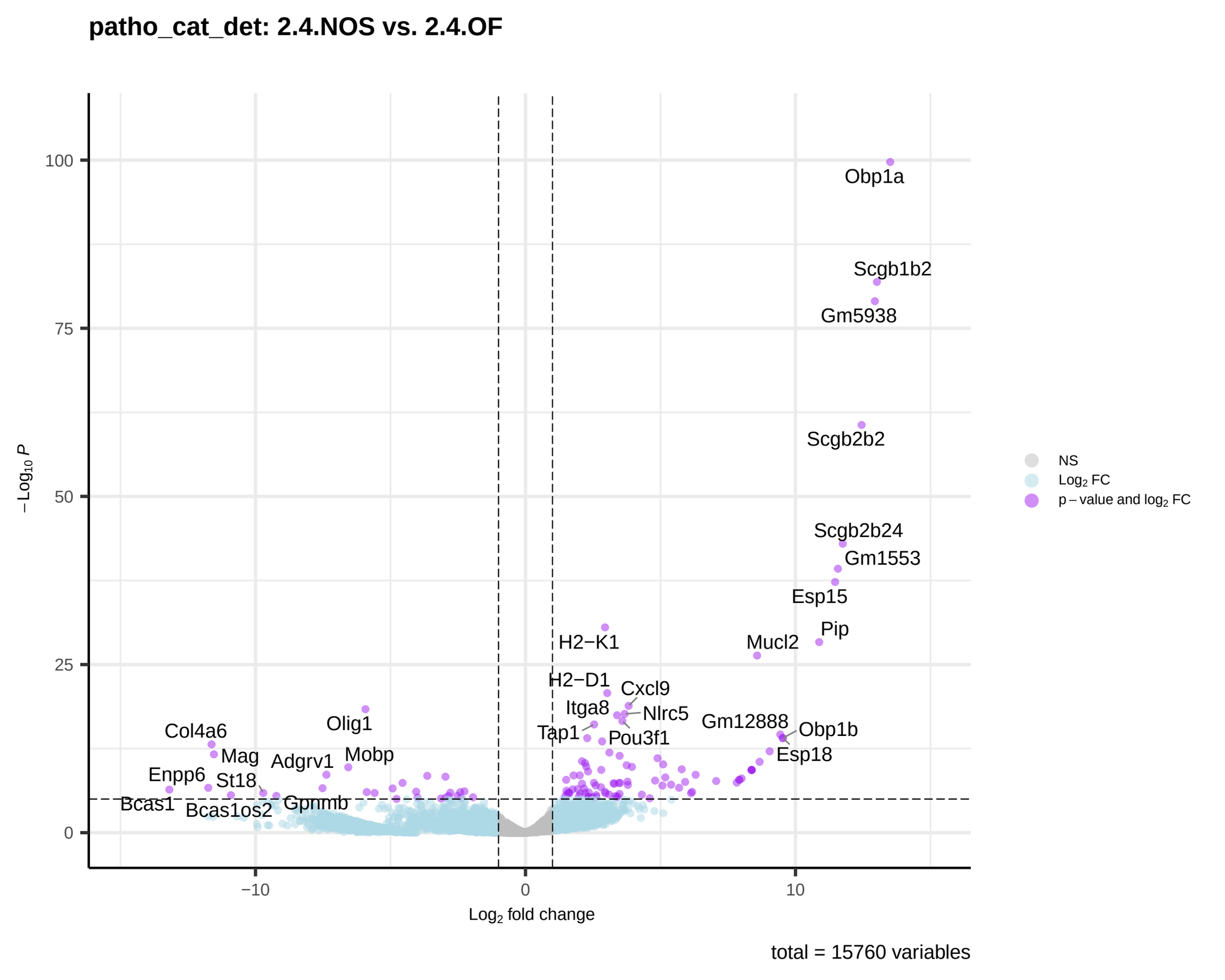

patho_cat_det: 1.4.NOS vs. 3.4.G
Meox2
Epyc
Igf1
Ebf2
Ccl11
Steap4
Mfap5
Bnc2
Prelp
Col14a1
Nipal1
Fmo1
Sbspon
Spata18
Abi3bp
Dpep1
Crispld1
4930438E09Rik
Cldn1
Mamdc2
Xpnpep2
Gpc3
Zfhx4
Emilin3
Srpx
Gm10754
Xkr7
Igfbp6
Thbd
Gpr174
Smim41
Gfra3
Cpa3
Osr2
Tnmd
Wscd1
C1ql1
Wnt7b
Tgfa
Atcay
Grik3
Csmd2
40
20
0
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 14619 variables

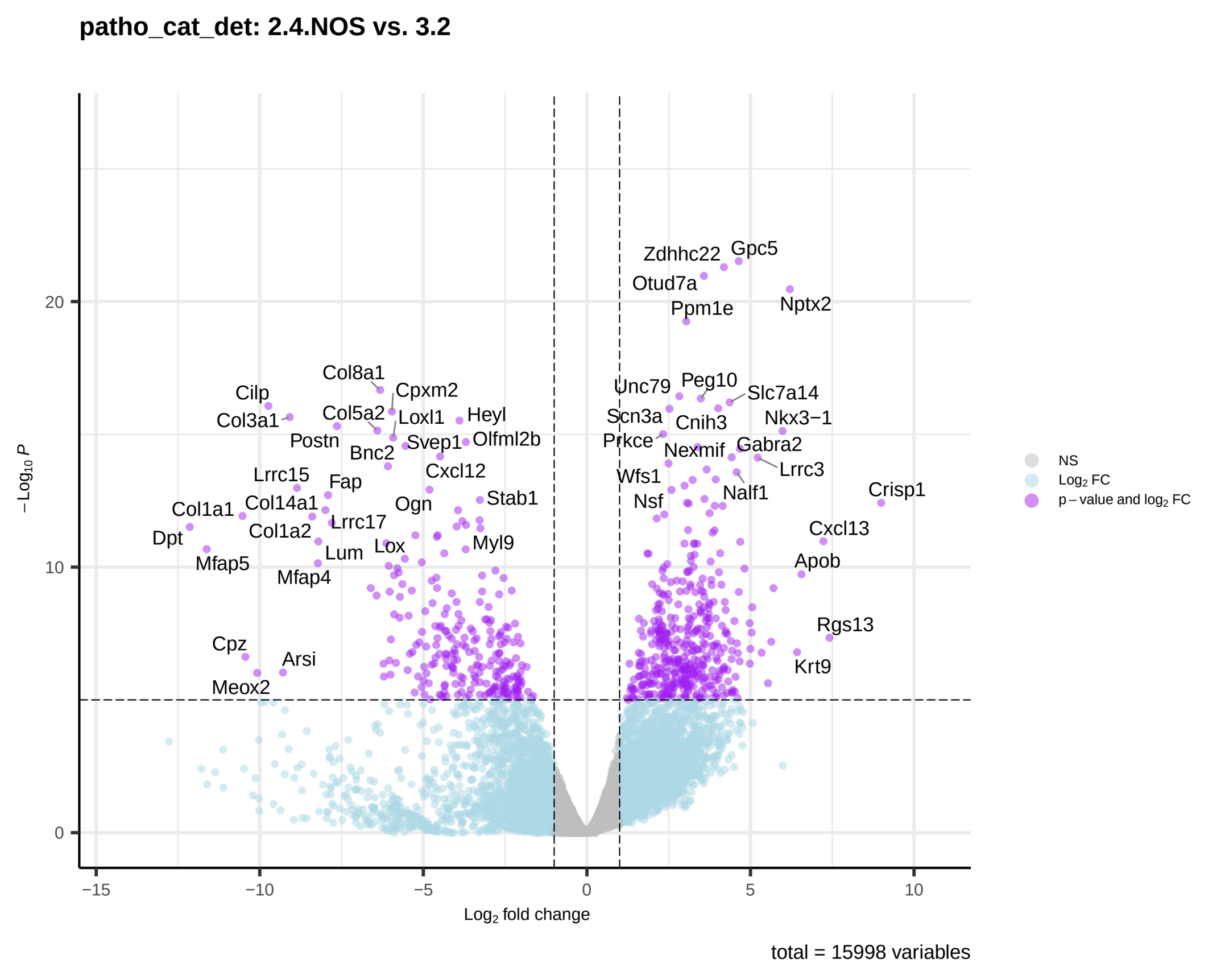

patho_cat_det: 1.4.NOS vs. 3.4.GSC
40
30
20
10
0
−Log10 P
−15
−10
−5
0
5
10
Log2 fold change
Cxcl13
Nalf1
Gad1
Slc38a1
Gabrb1
Mlc1
Six3os1
Grin2b
Nell2
Slc8a1
Trim12a
Trim30d
Lmo3
Htr2c
Rit2
Retnla
Slc6a3
Slc6a5
Nkx2−1
Epyc
Meox2
Kank4
Lvrn
Ebf2
Mfap5
Gm6878
Crispld1
Cpxm2
Steap4
Igf1
Sbspon
Kank4os
Svep1
Dpep1
Naalad2
Ccnb3
Smim41
Tecta
Emilin3
Morc1
Pmp2
Vit
Mylk2
Gm23610
Twist2
NS
Log2 FC
p − value and log2 FC
total = 15654 variables

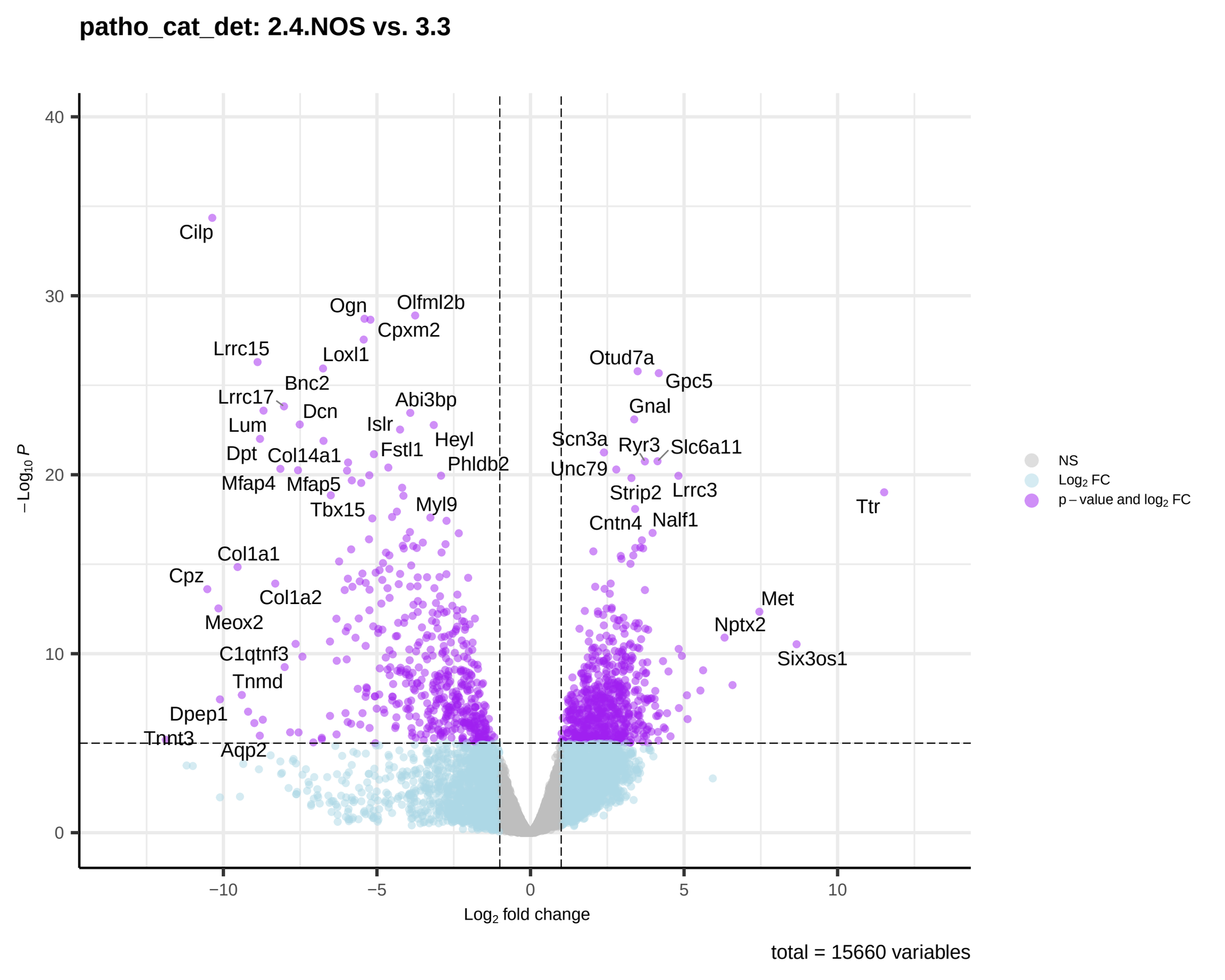

patho_cat_det: 1.4.NOS vs. 3.4.LMG
60
40
20
0
−Log10 P
−10
−5
0
5
10
15
Log2 fold change
Prl
Xist
Nalf1
Gh
Uty
Eif2s3y
Ddx3y
Tafa2
Pomc
Meox2
Cadm2
Cpxm2
Mir9−3hg
Steap4
Epyc
Dcx
Igf1
Abca8a
B3gat1
Crispld1
Ebf2
Kank4
Kdm5d
Cldn1
Lum
Col8a2
4930438E09Rik
Ccnb3
Mmp10
Gpr174
C1ql2
Gfra3
NS
Log2 FC
p − value and log2 FC
total = 15048 variables


patho_cat_det: 1.4.NOS vs. 4.2.D
Nrgn
Nalf1
Gad1
Nell2
Celf4
Gabrb1
Grin2b
Sez6l
Frrs1l
Lmo3
Cadm2
Kcna4
Sidt1
Meox2
Lum
Ebf2
Adamts12
Mmp2
Gm6878
Col3a1
Lvrn
Cck
Dcn
Nipal1
4930438E09Rik
Sst
Htr5a
Htr1a
Ccnb3
Prl2c3
Gpr174
Slc27a6
Cdca2
Gfra3
40
30
20
10
0
−10
0
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15356 variables

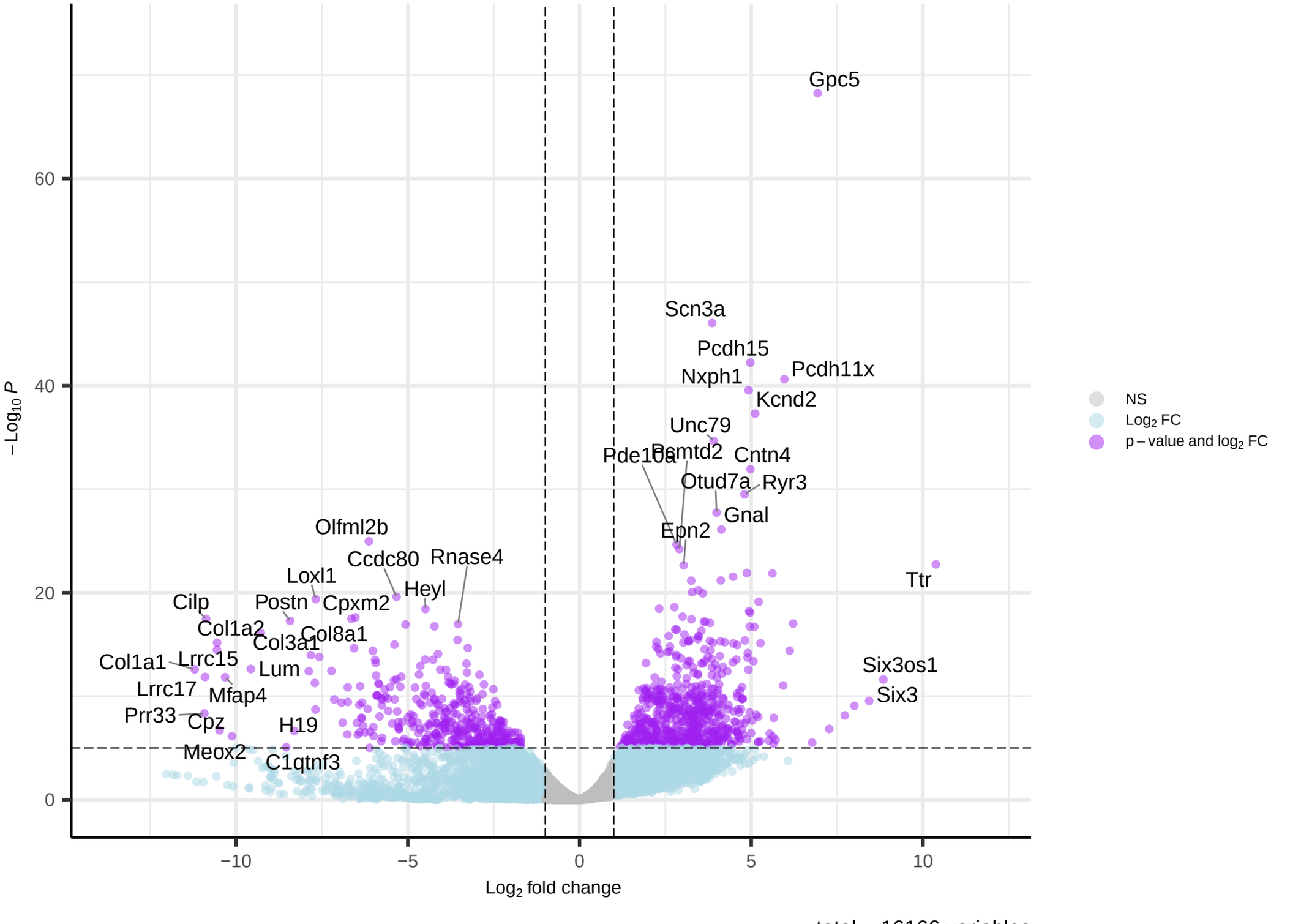

patho_cat_det: 1.4.NOS vs. 4.N.NOS
Xist
Steap4
Abca8a
St8sia2
Igf1
Xkr7
Mfap5
Kank4
Cldn1
Spata18
Dpep1
Ccl11
Igfbp6
Ptch2
Gpr174
Emilin3
Morc1
Cpa3
Gfra3
Spaar
Tpsab1
Bhmt
Wnt10a
Klrb1c
Tspan2
Cldn11
Enpp6
C1ql1
Tubb4a
Tppp
Bcas1
Tgfa
Opalin
Myrf
St18
Npbwr1
Tmem108
Fabp5
Wnt7b
Uty
Mmp9
Ddx3y
Nxf3
Mmp10
Eif2s3y
Kdm5d
Klk6
Mmp3
40
20
0
−15
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15540 variables


patho_cat_det: 2.4.NOS vs. 2.4.OF
100
75
50
25
0
−Log10 P
−10
0
10
Log2 fold change
Obp1a
Scgb1b2
Gm5938
Scgb2b2
Scgb2b24
Gm1553
Esp15
Pip
Mucl2
H2−K1
H2−D1
Cxcl9
Itga8
Nlrc5
Tap1
Pou3f1
Gm12888
Obp1b
Esp18
Olig1
Mobp
Adgrv1
Col4a6
Mag
Enpp6
St18
Bcas1
Bcas1os2
Gpnmb
NS
Log2 FC
p − value and log2 FC
total = 15760 variables


patho_cat_det: 2.4.NOS vs. 3.2
Zdhhc22
Gpc5
Otud7a
Nptx2
Ppm1e
Col8a1
Cilp
Cpxm2
Col5a2
Loxl1
Heyl
Col3a1
Postn
Svep1
Olfml2b
Bnc2
Cxcl12
Lrrc15
Fap
Stab1
Col1a1
Col14a1
Ogn
Lrrc17
Col1a2
Dpt
Lox
Myl9
Lum
Mfap5
Mfap4
Cpz
Arsi
Meox2
Unc79
Peg10
Slc7a14
Scn3a
Cnih3
Nkx3−1
Prkce
Nexmif
Gabra2
Lrrc3
Wfs1
Nalf1
Crisp1
Nsf
Cxcl13
Apob
Rgs13
Krt9
NS
Log2 FC
p – value and log2 FC
−Log10 P
Log2 fold change
total = 15998 variables

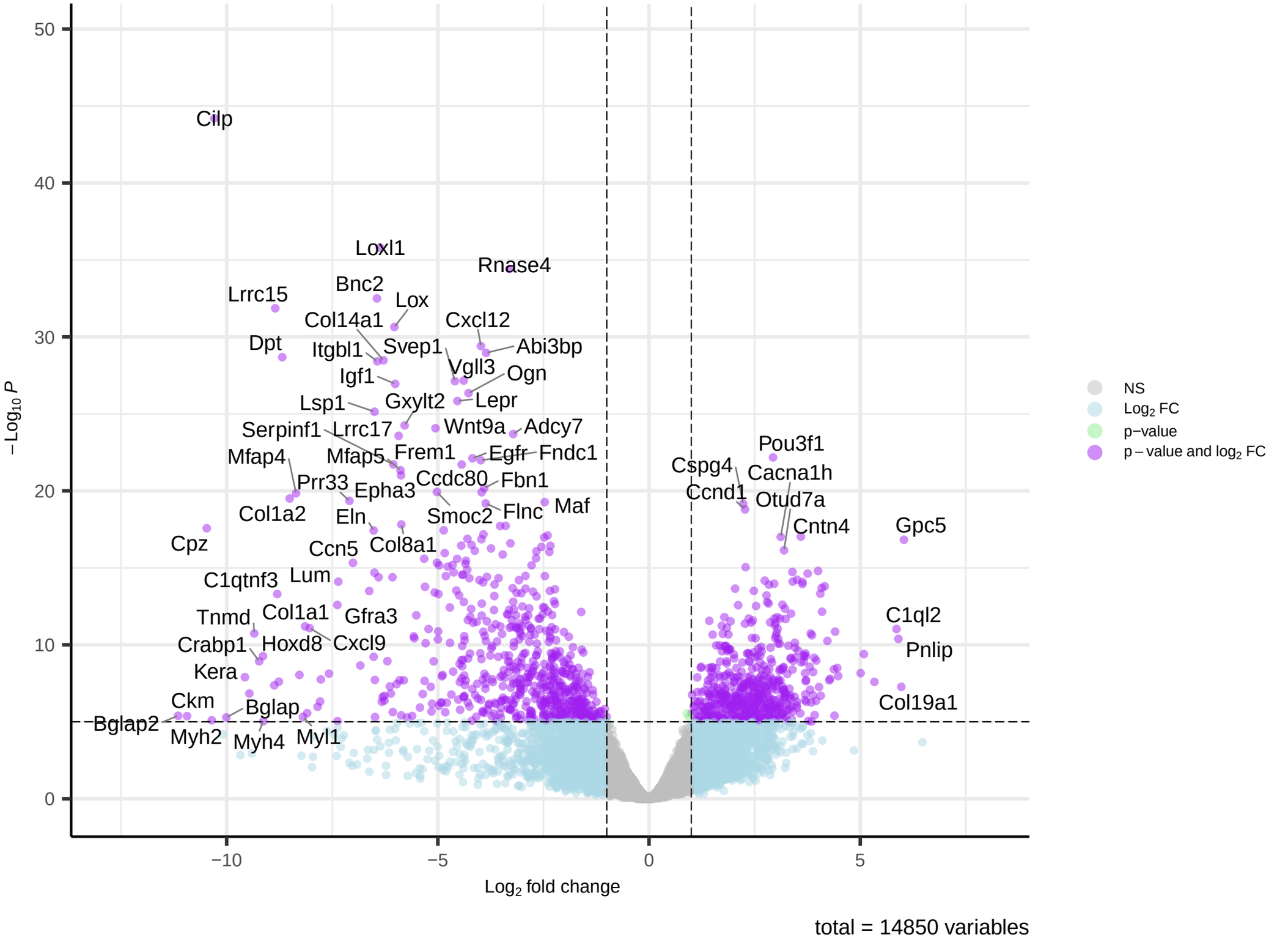

patho_cat_det: 2.4.NOS vs. 3.3
Cilp
Ogn
Olfml2b
Cpxm2
Lrrc15
Loxl1
Bnc2
Lrrc17
Dcn
Abi3bp
Lum
Islr
Heyl
Dpt
Col14a1
Fstl1
Phldb2
Mfap4
Mfap5
Tbx15
Myl9
Col1a1
Cpz
Col1a2
Meox2
C1qtnf3
Tnmd
Dpep1
Tnnt3
Aqp2
Otud7a
Gpc5
Gnal
Scn3a
Ryr3
Slc6a11
Unc79
Strip2
Lrrc3
Cntn4
Nalf1
Ttr
Met
Nptx2
Six3os1
40
30
20
10
0
−10
−5
0
5
10
$-\text{Log}_{10} P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15660 variables

patho_cat_det: 2.4.NOS vs. 3.4

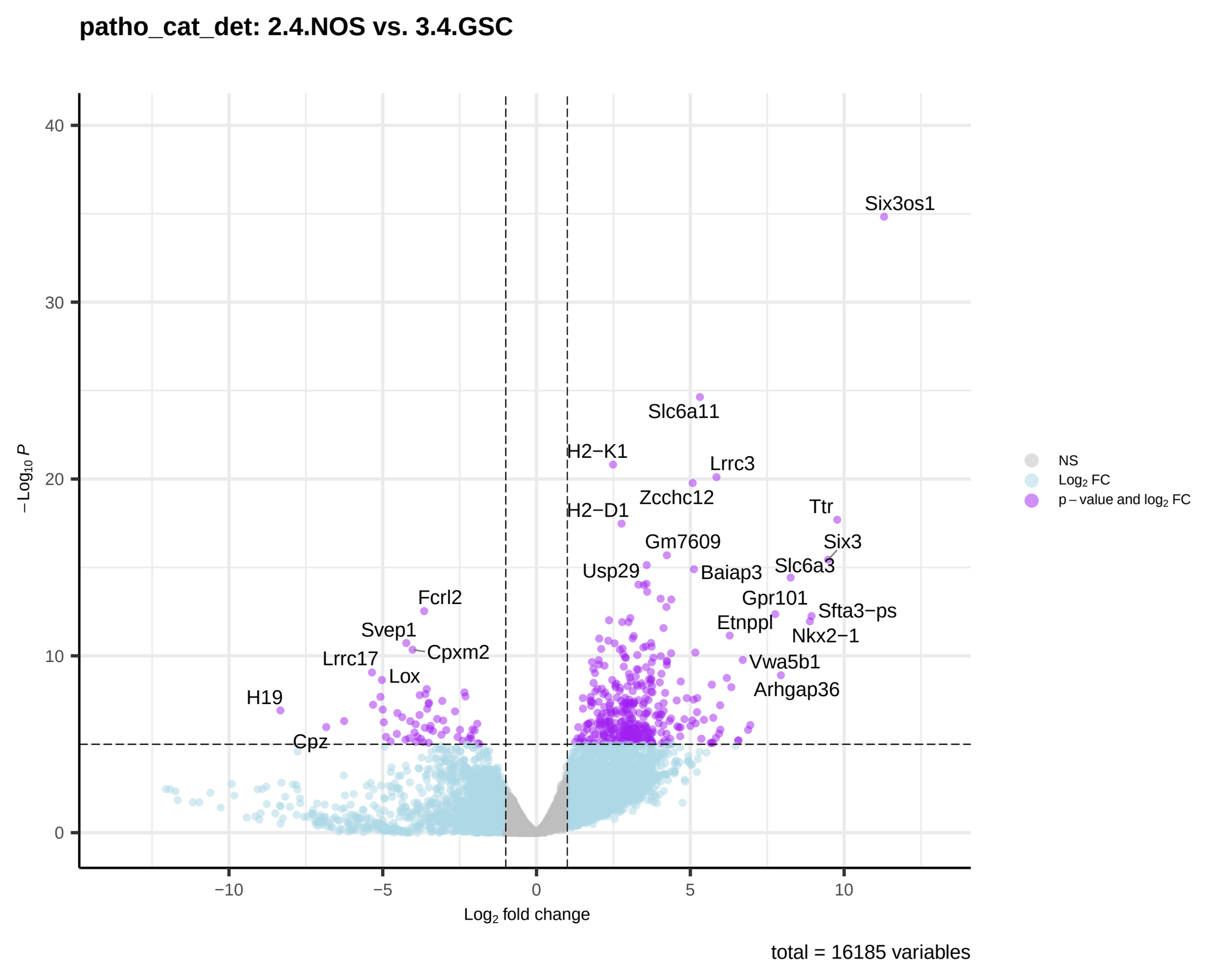


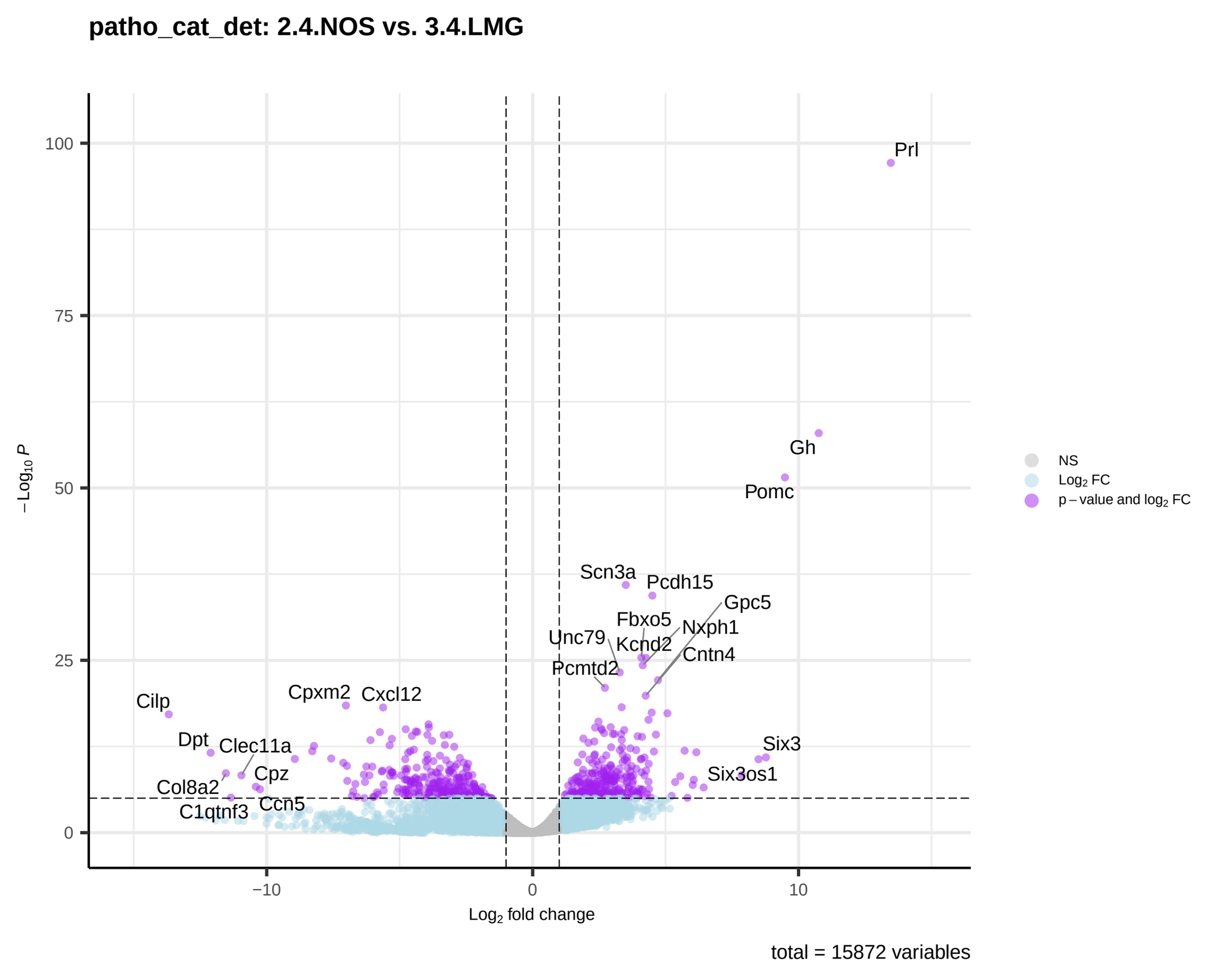
total = 16166 variables

patho_cat_det: 2.4.NOS vs. 3.4.G

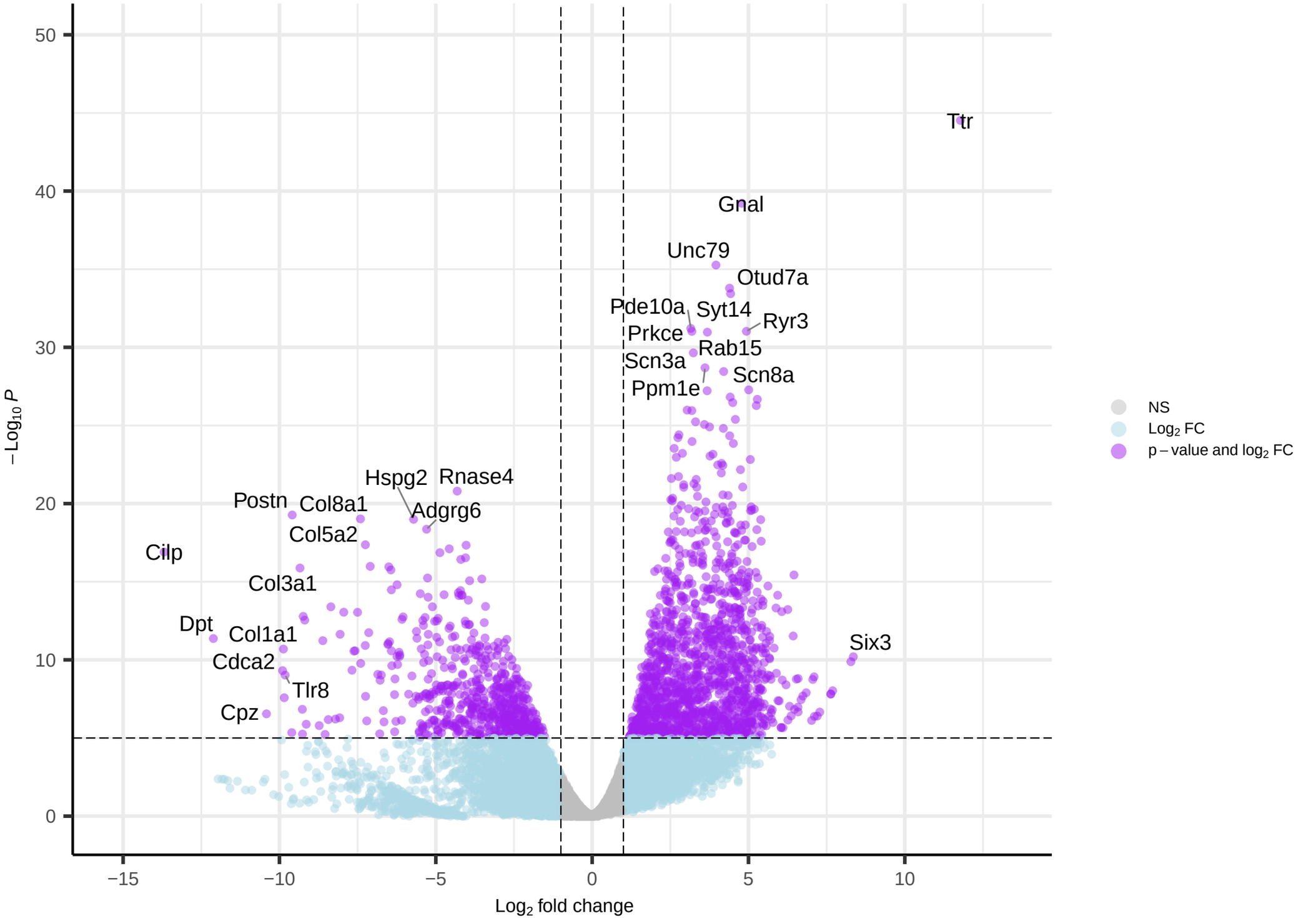


total = 14850 variables

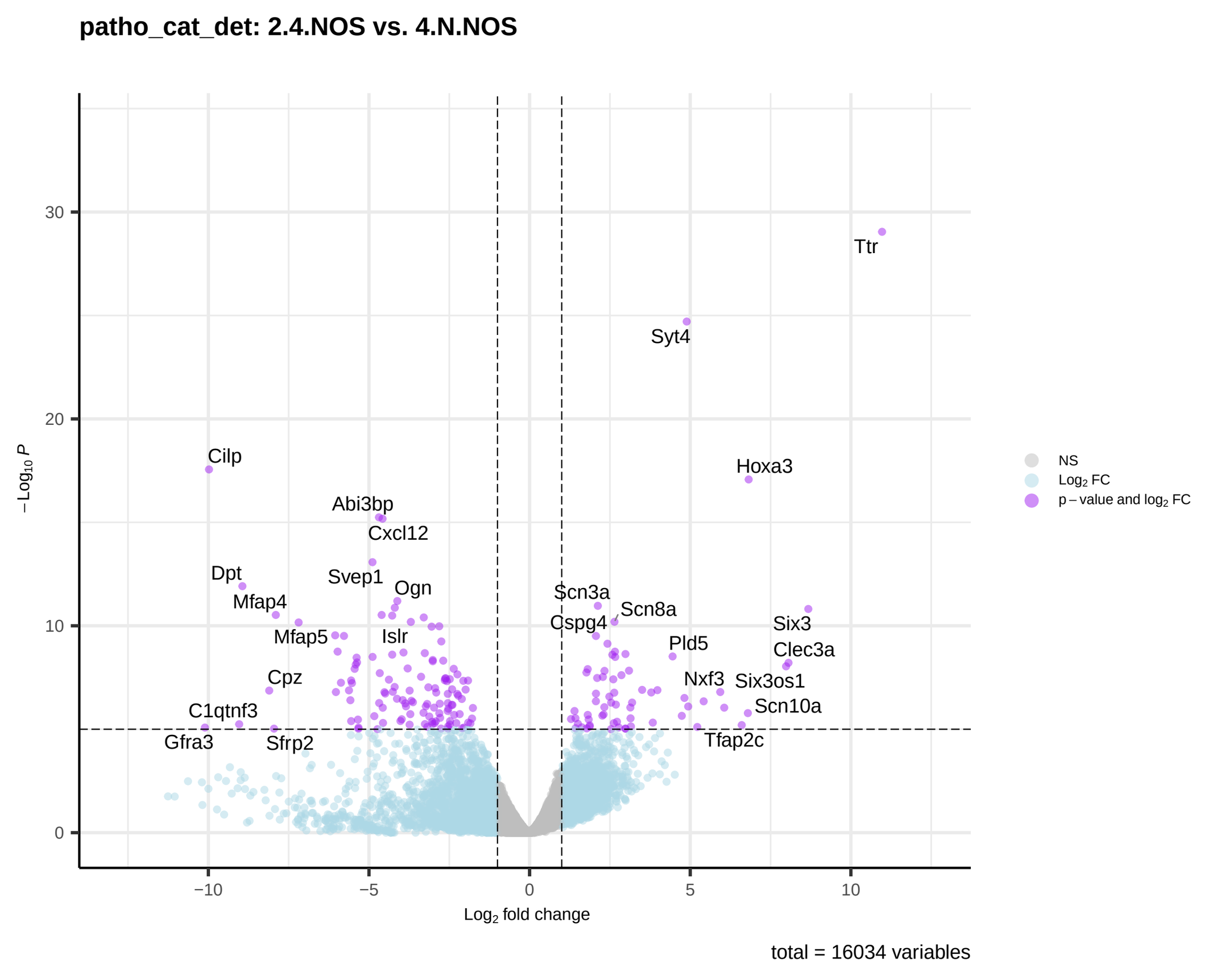

patho_cat_det: 2.4.NOS vs. 3.4.GSC
Six3os1
Slc6a11
H2−K1
Lrrc3
Zcchc12
H2−D1
Ttr
Gm7609
Six3
Usp29
Baiap3
Slc6a3
Fcrl2
Gpr101
Sfta3−ps
Svep1
Etnppl
Nkx2−1
Cpxm2
Lrrc17
Vwa5b1
Lox
Arhgap36
H19
Cpz
40
30
20
10
0
−10
−5
0
5
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 16185 variables

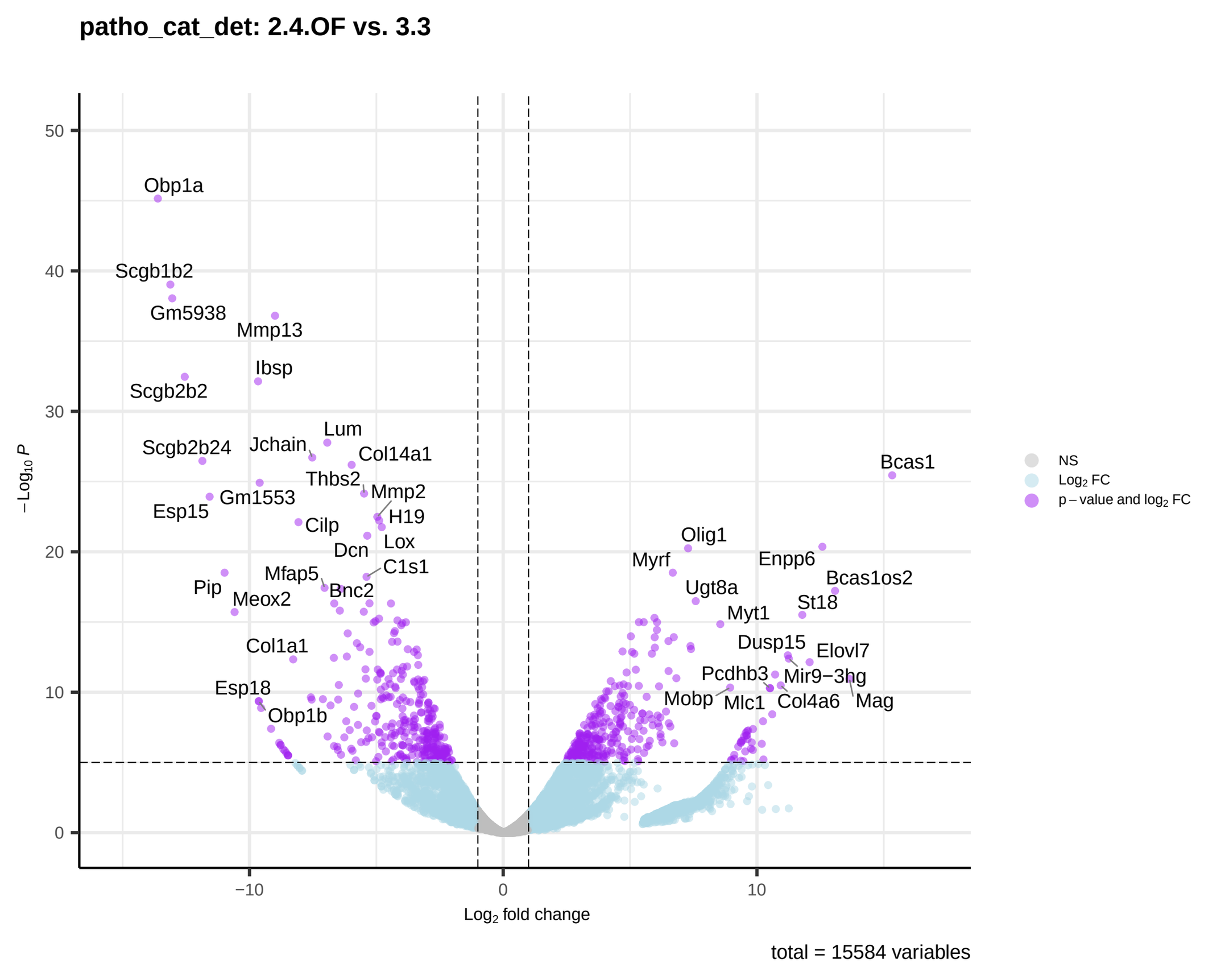

patho_cat_det: 2.4.NOS vs. 3.4.LMG
100
75
50
25
0
−Log10 P
−10
0
10
Log2 fold change
Prl
Gh
Pomc
Scn3a
Pcdh15
Gpc5
Fbxo5
Nxph1
Unc79
Kcnd2
Cntn4
Pcmtd2
Cpxm2
Cxcl12
Cilp
Dpt
Clec11a
Cpz
Col8a2
C1qtnf3
Ccn5
Six3
Six3os1
NS
Log2 FC
p – value and log2 FC
total = 15872 variables

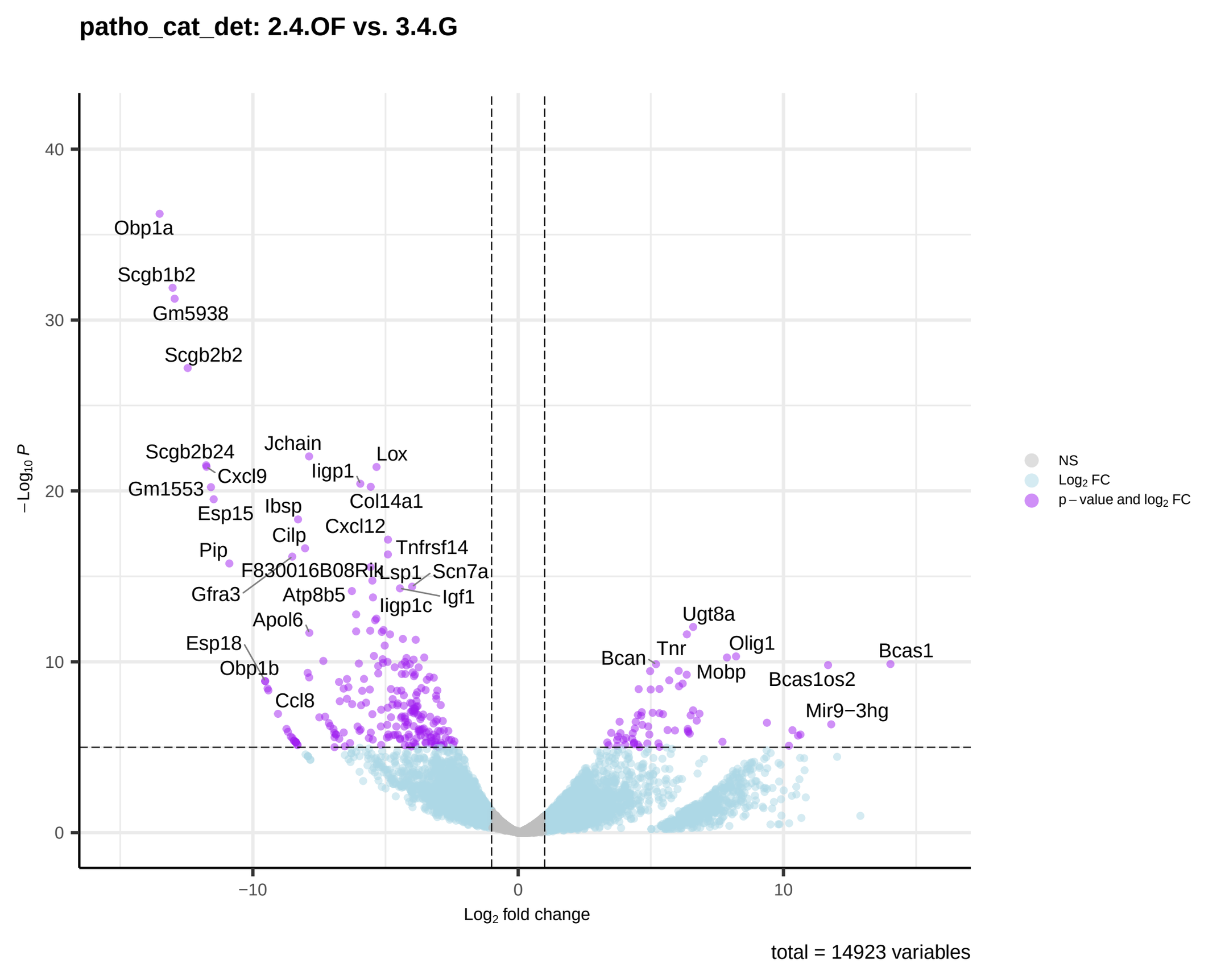
patho_cat_det: 2.4.NOS vs. 4.2.D

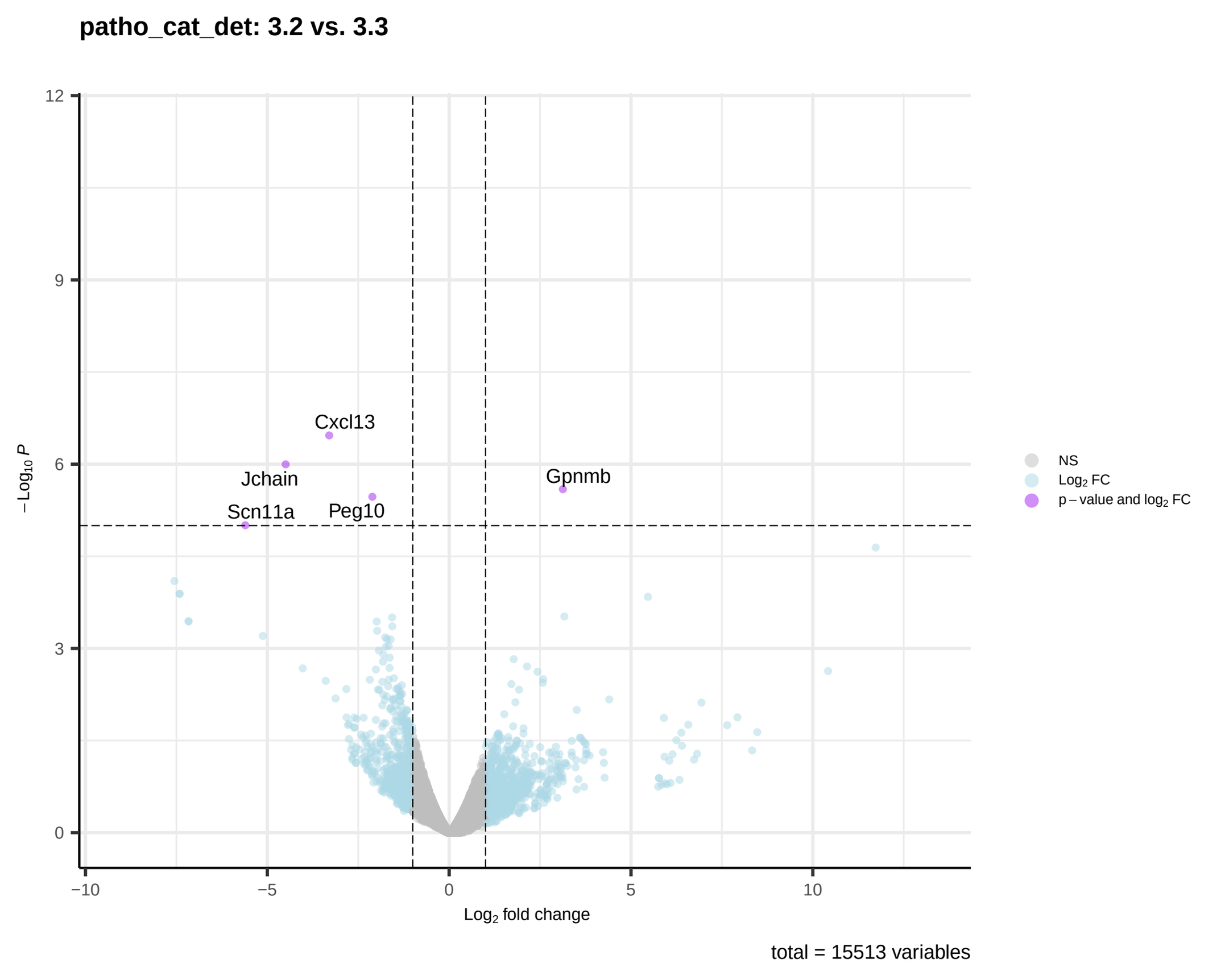


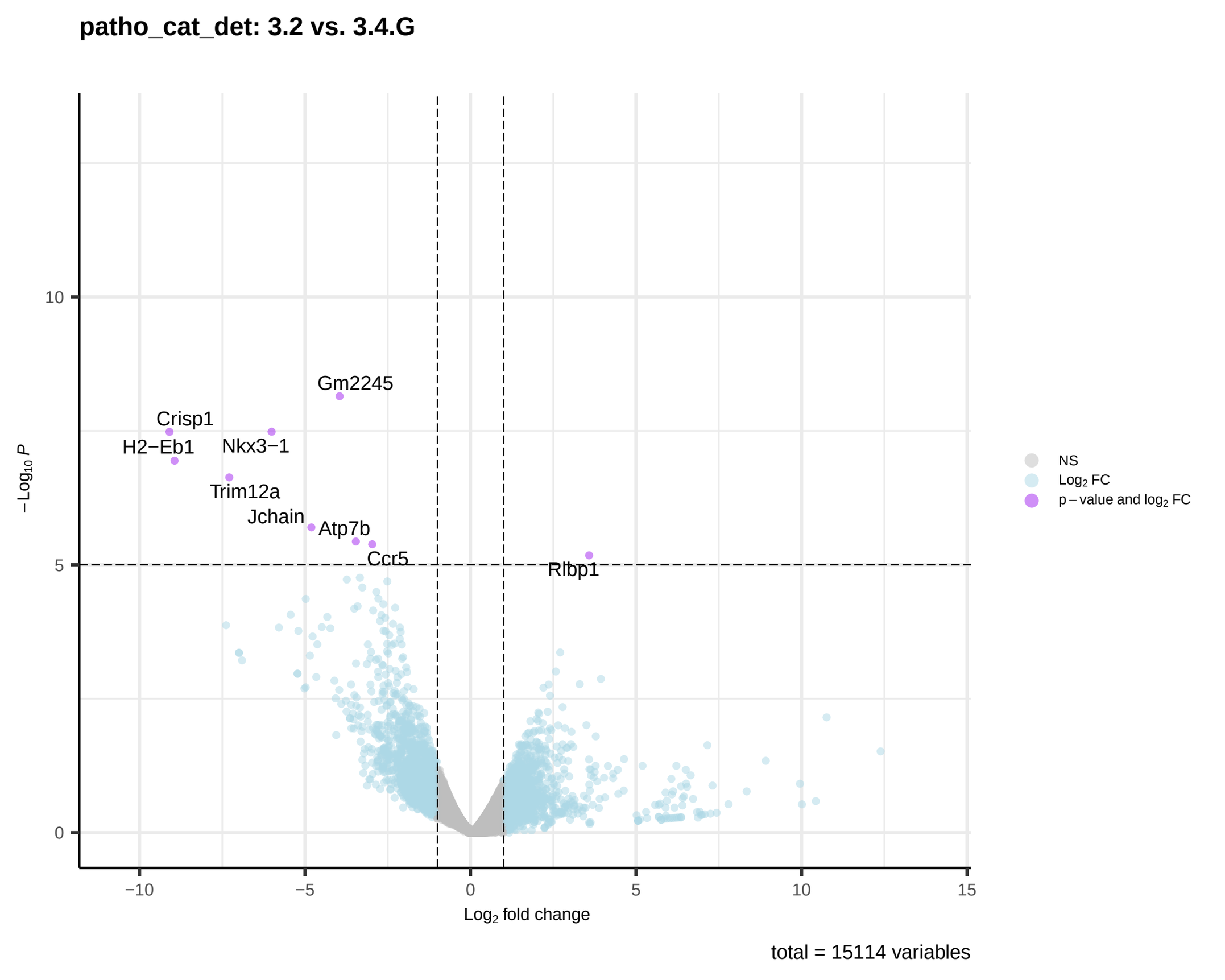
total = 16125 variables

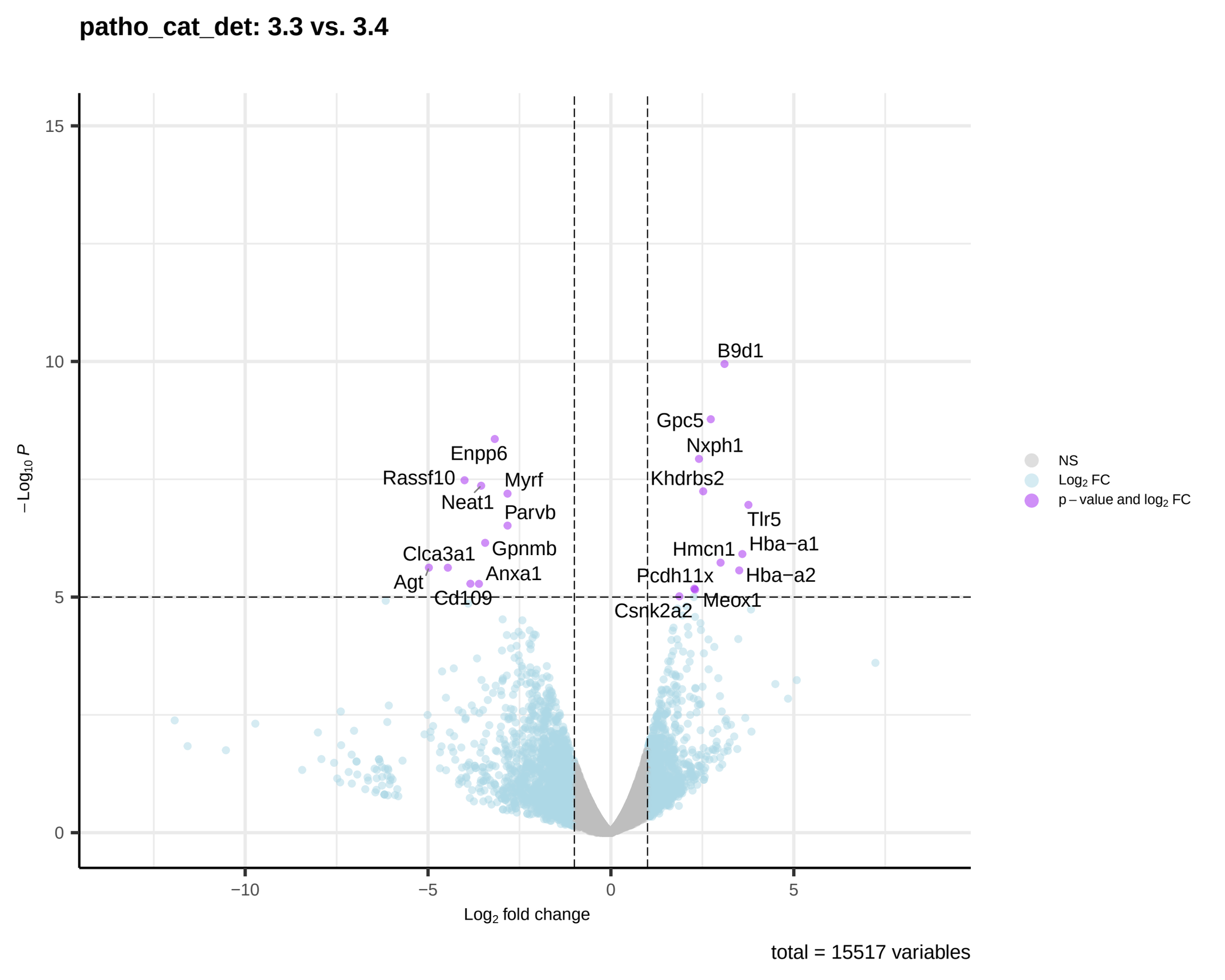

patho_cat_det: 2.4.NOS vs. 4.N.NOS
30
20
10
0
−Log10 P
Ttr
Syt4
Hoxa3
Cilp
Abi3bp
Cxcl12
Svep1
Dpt
Ogn
Mfap4
Scn3a
Scn8a
Cspg4
Six3
Mfap5
Islr
Pld5
Clec3a
Cpz
Nxf3
Six3os1
C1qtnf3
Scn10a
Gfra3
Sfrp2
Tfap2c
−10
−5
0
5
10
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 16034 variables

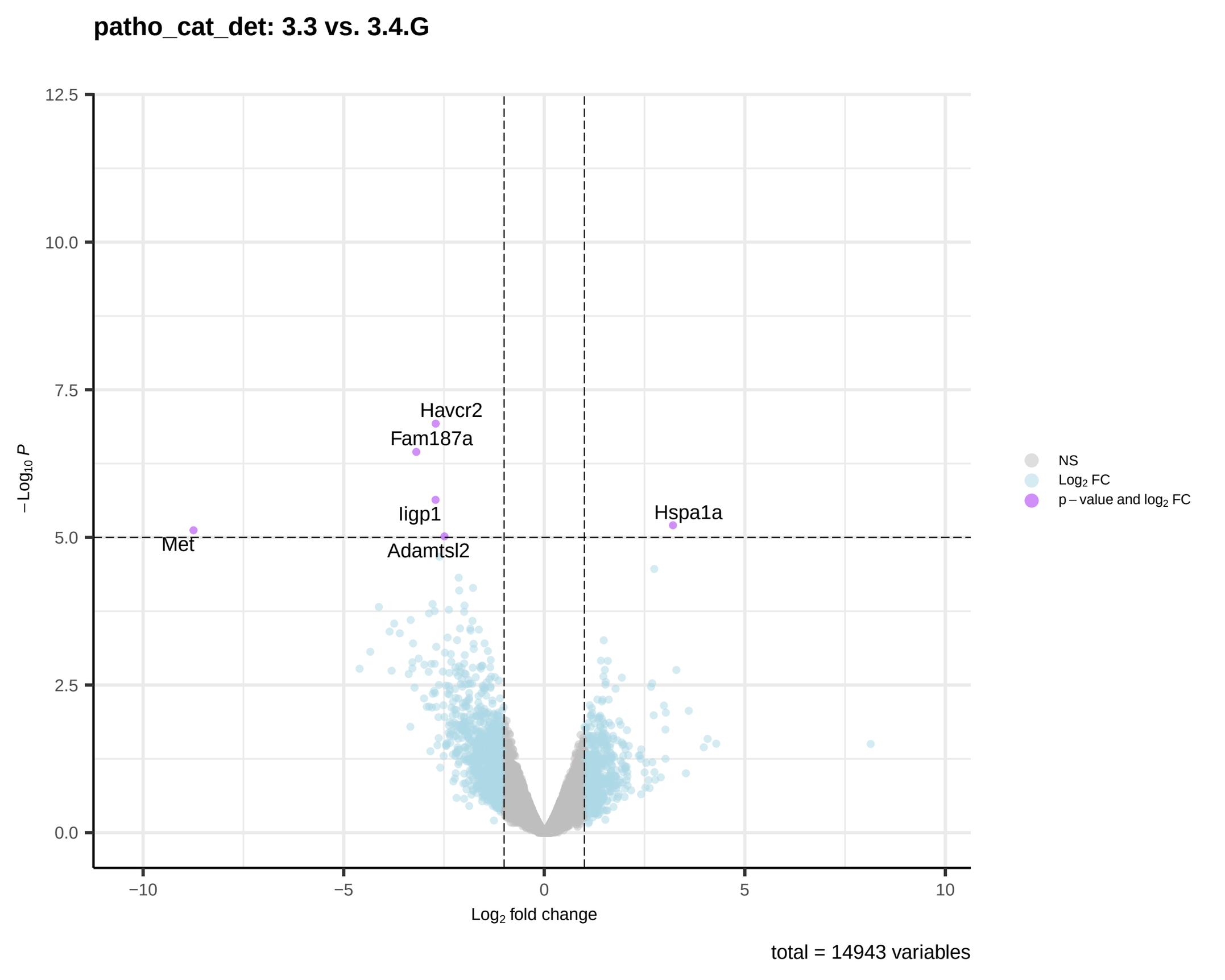

patho_cat_det: 2.4.OF vs. 3.3
50
40
30
20
10
0
−Log10 P
Obp1a
Scgb1b2
Gm5938
Mmp13
Ibsp
Scgb2b2
Scgb2b24
Jchain
Lum
Col14a1
Thbs2
Mmp2
Gm1553
Esp15
H19
Cilp
Lox
Dcn
C1s1
Mfap5
Bnc2
Pip
Meox2
Col1a1
Esp18
Obp1b
Olig1
Myrf
Enpp6
Bcas1
Bcas1os2
Ugt8a
St18
Myt1
Dusp15
Elovl7
Pcdhb3
Mir9−3hg
Mobp
Mlc1
Col4a6
Mag
−10
0
10
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15584 variables

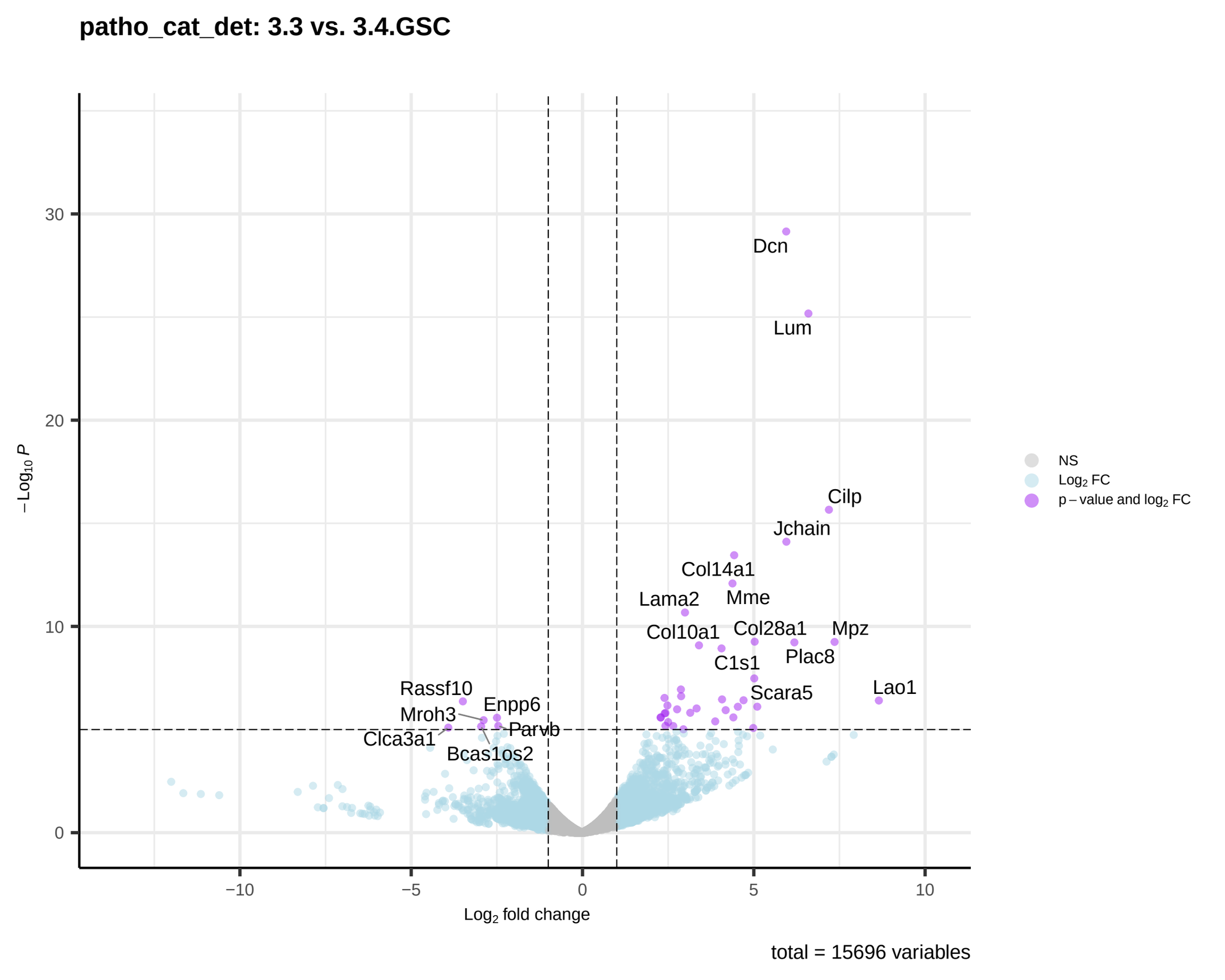

patho_cat_det: 2.4.OF vs. 3.4.G
40
30
20
10
0
−Log10 P
−10
0
10
Log2 fold change
Obp1a
Scgb1b2
Gm5938
Scgb2b2
Scgb2b24
Cxcl9
Gm1553
Esp15
Jchain
Igip1
Lox
Col14a1
Ibsp
Cxcl12
Cilp
Tnfrsf14
Pip
F830016B08Rik
Lsp1
Scn7a
Gfra3
Atp8b5
Igf1
Igip1c
Apol6
Esp18
Obp1b
Ccl8
Ugt8a
Tnr
Olig1
Bcan
Mobp
Bcas1
Bcas1os2
Mir9−3hg
NS
Log2 FC
p − value and log2 FC
total = 14923 variables

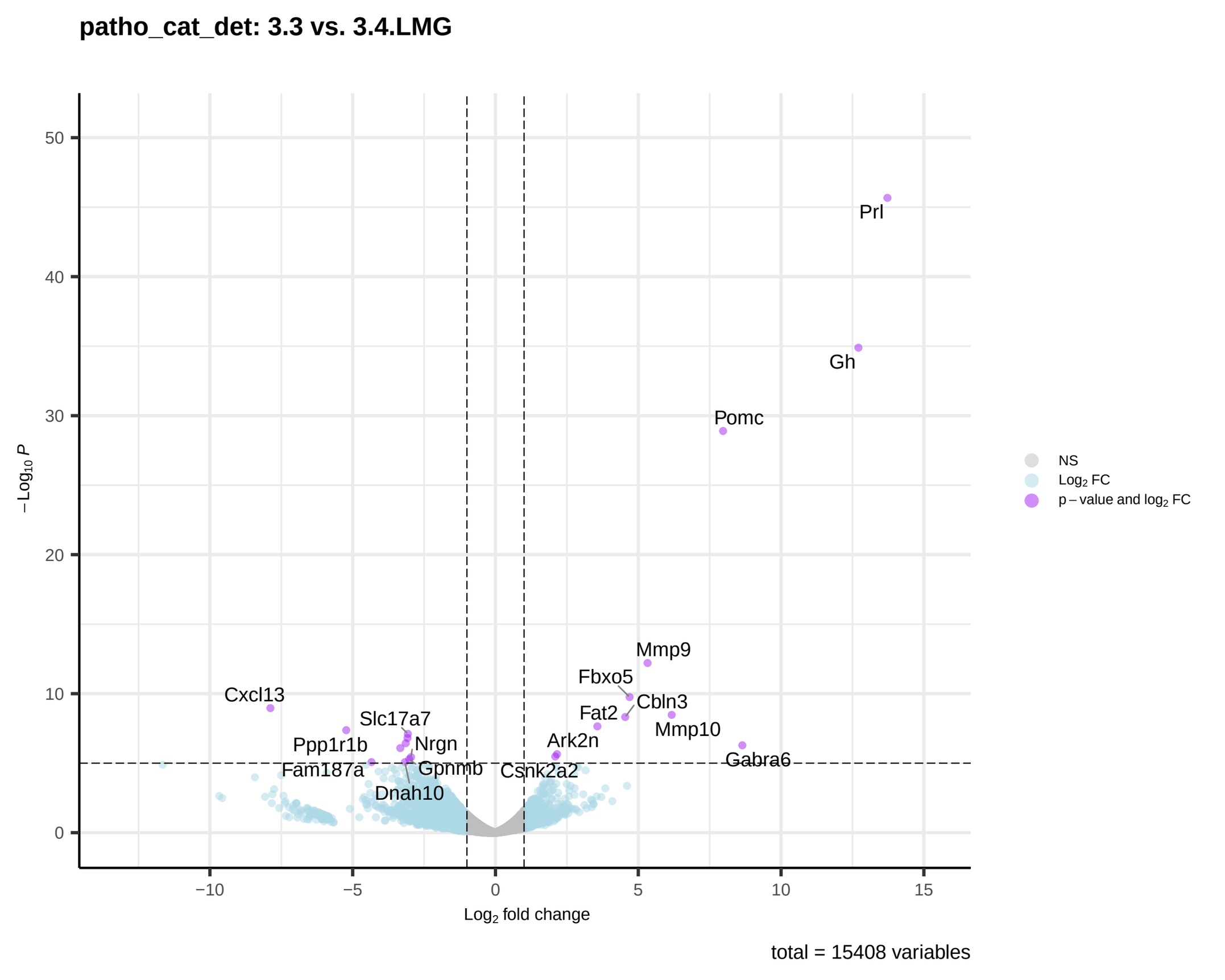

patho_cat_det: 3.2 vs. 3.3
12
9
6
3
0
−Log10 P
Cxcl13
Jchain
Scn11a
Peg10
Gpnmb
−10
−5
0
5
10
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15513 variables

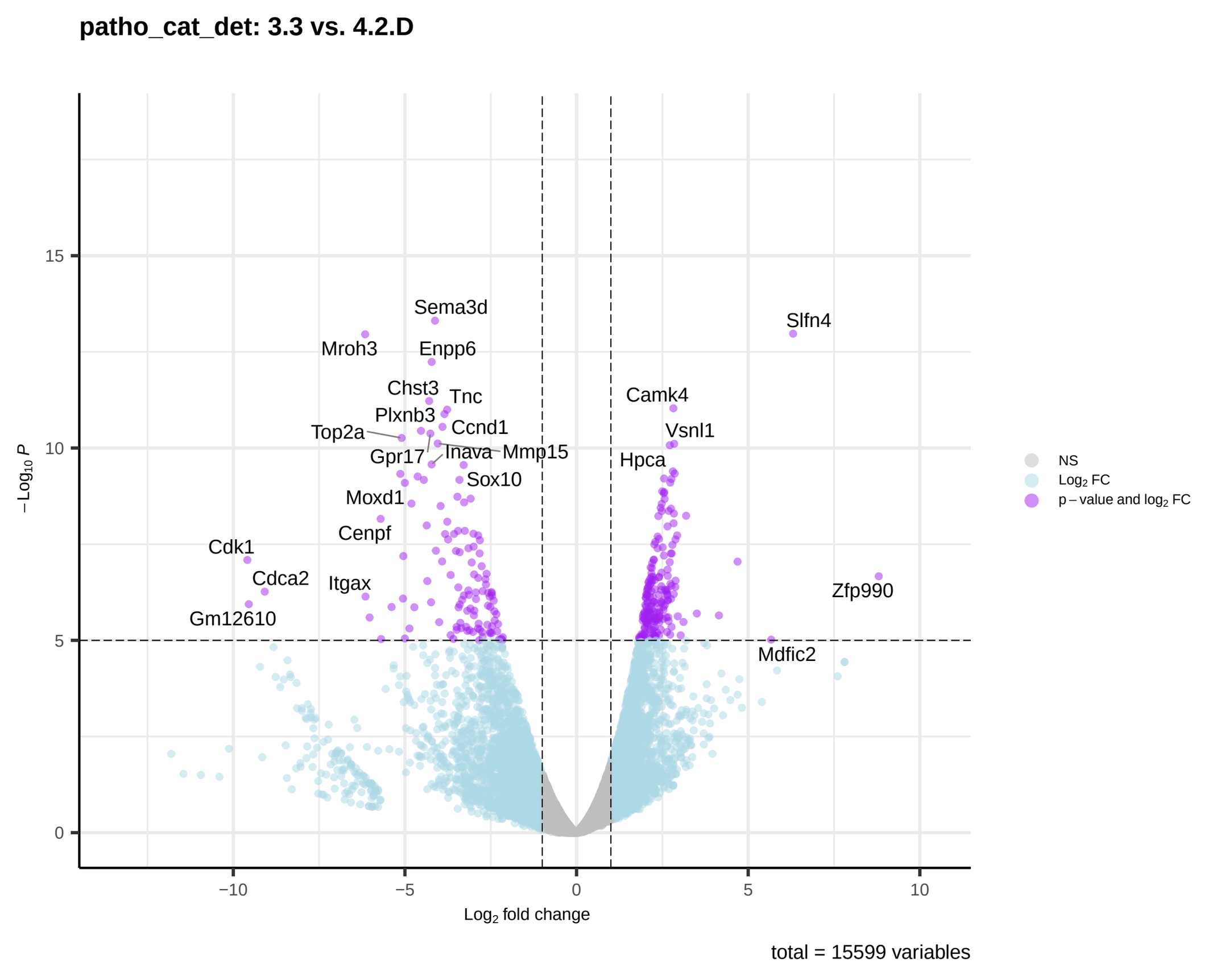

patho_cat_det: 3.2 vs. 3.4.G
Gm2245
Crisp1
H2−Eb1
Nkx3−1
Trim12a
Jchain
Atp7b
Ccr5
Rlbp1
10
5
0
−10
−5
0
5
10
15
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15114 variables

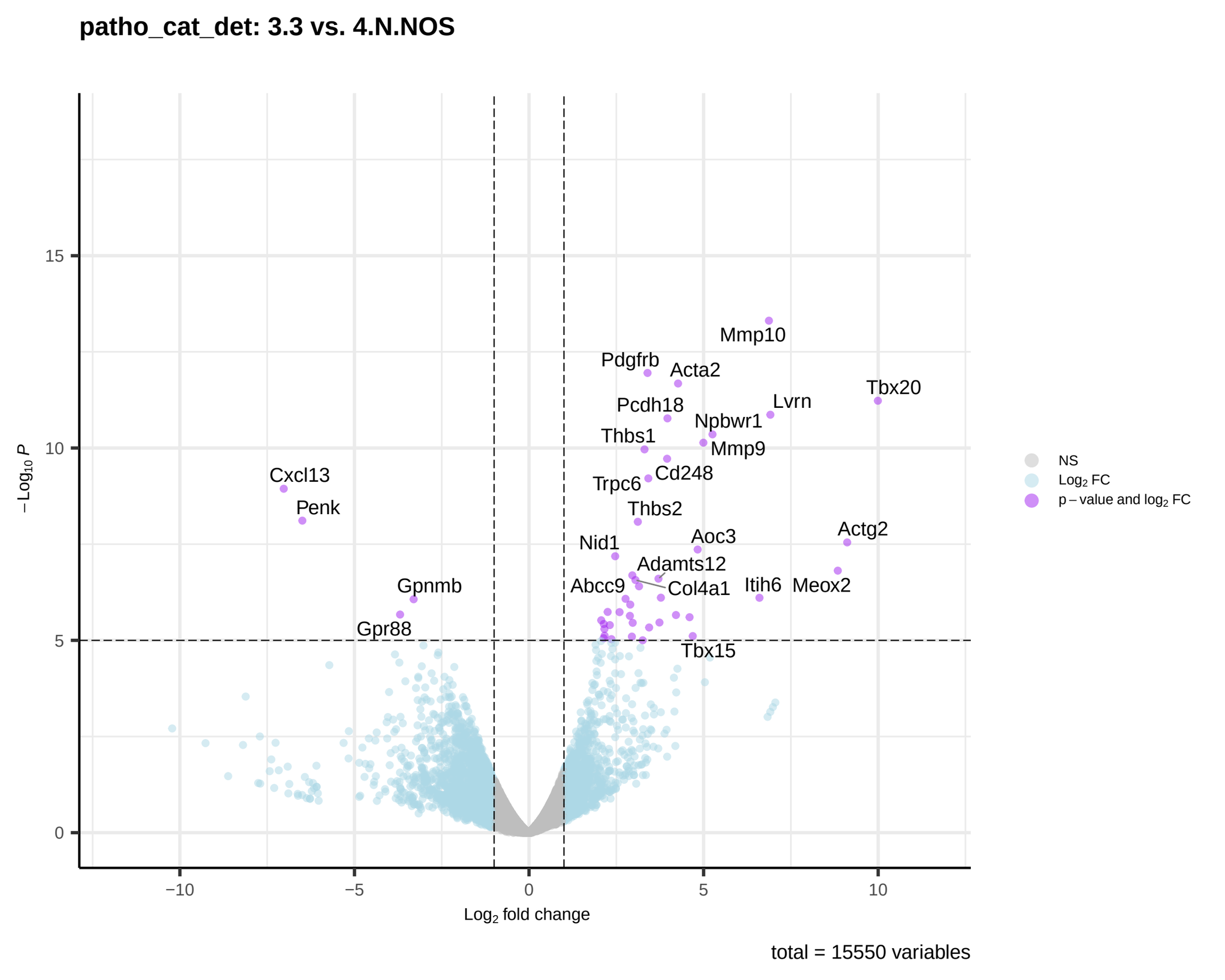

patho_cat_det: 3.3 vs. 3.4
15
10
5
0
−Log10 P
−10
−5
0
5
Log2 fold change
B9d1
Gpc5
Nxph1
Khdrbs2
Tlr5
Hba−a1
Hba−a2
Meox1
Hmcn1
Pcdh11x
Csnk2a2
Enpp6
Rassf10
Myrf
Neat1
Parvb
Gpnmb
Clca3a1
Anxa1
Agt
Cd109
NS
Log2 FC
p − value and log2 FC
total = 15517 variables

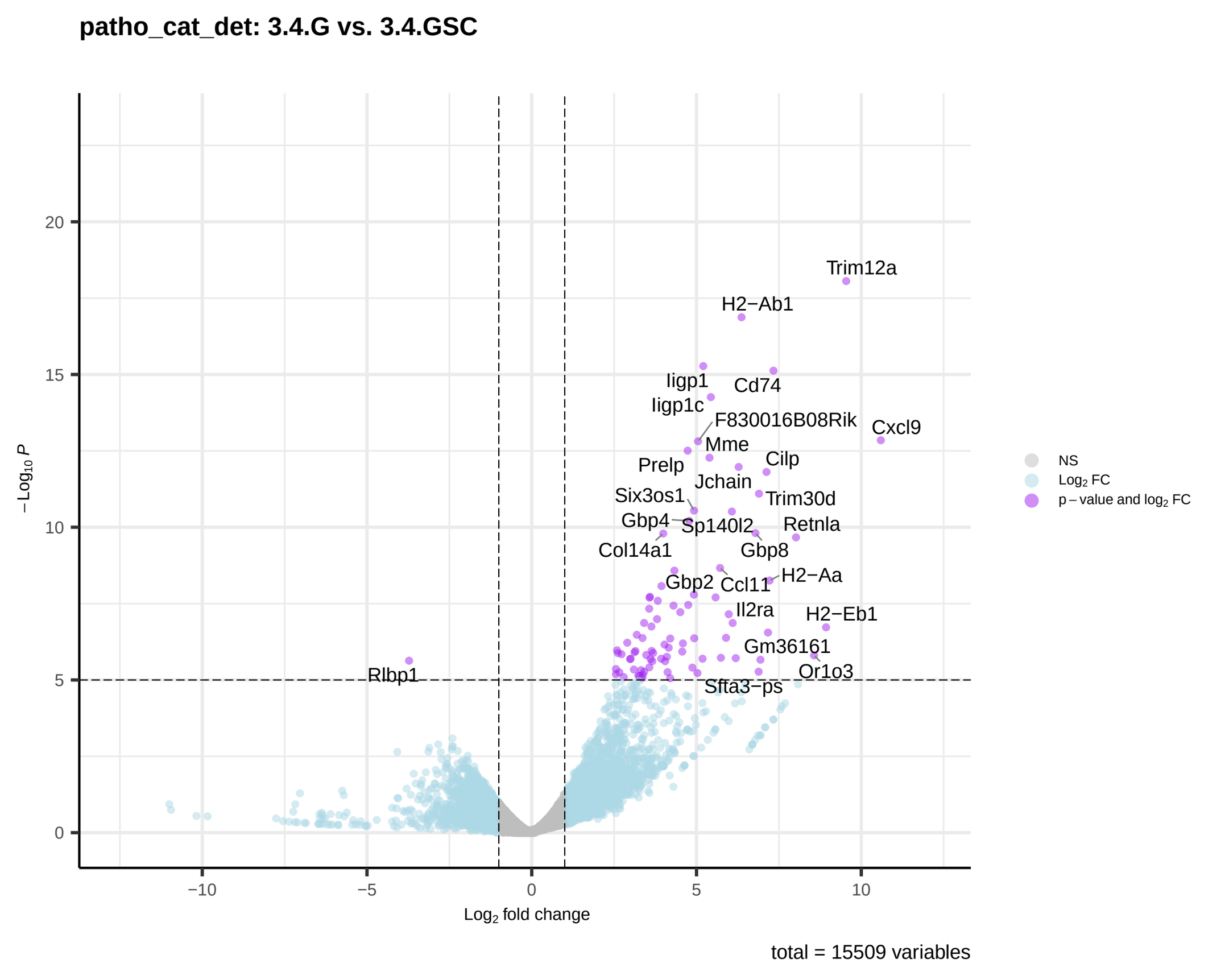

patho_cat_det: 3.3 vs. 3.4.G
12.5
10.0
7.5
5.0
2.5
0.0
−Log10 P
Havcr2
Fam187a
Iigp1
Adamtsl2
Met
Hspa1a
−10
−5
0
5
10
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 14943 variables

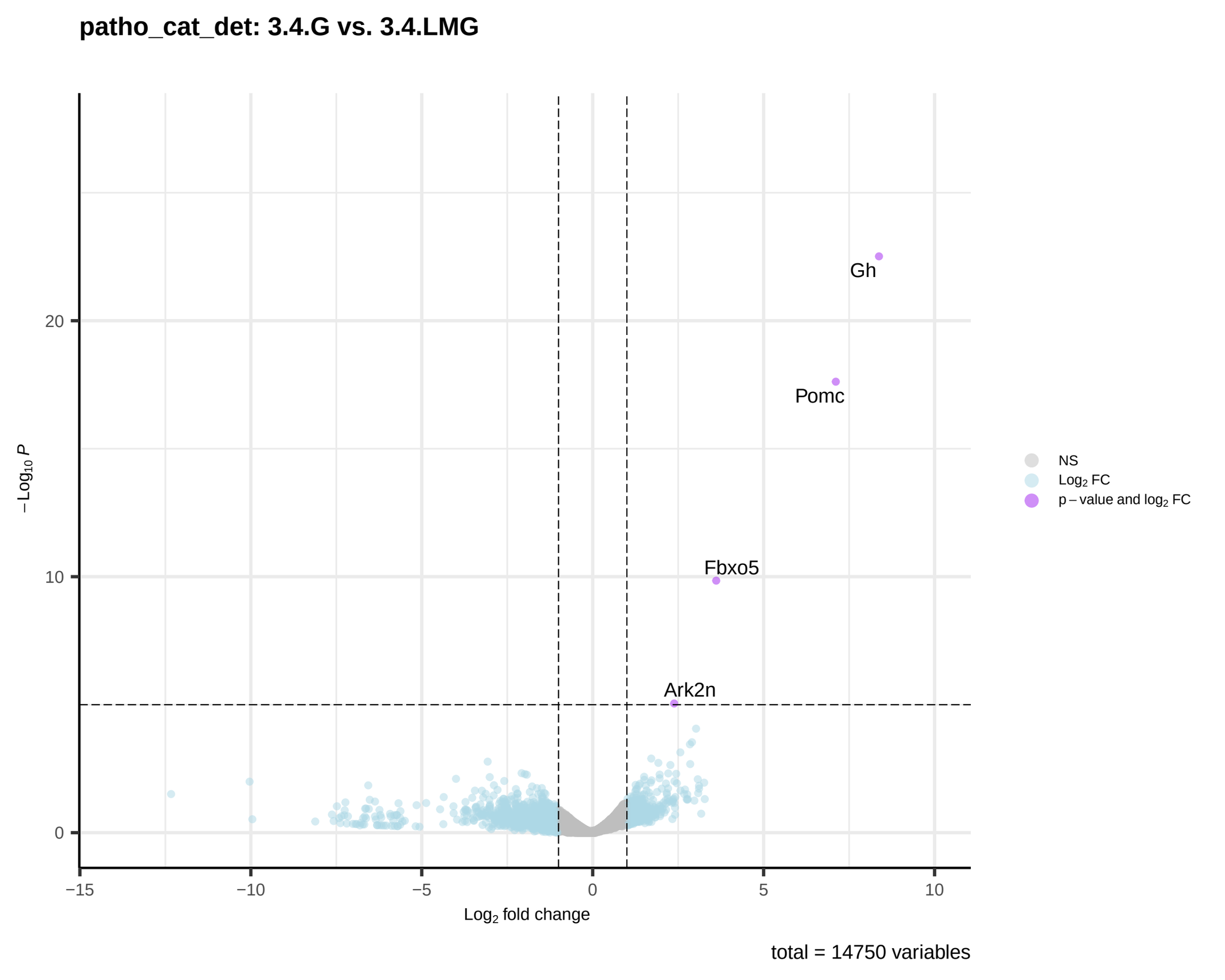

patho_cat_det: 3.3 vs. 3.4.GSC
30
20
10
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Dcn
Lum
Cilp
Jchain
Col14a1
Lama2
Mme
Col10a1
Col28a1
Mpz
Plac8
C1s1
Scara5
Lao1
Rassf10
Enpp6
Mroh3
Parvb
Clca3a1
Bcas1os2
NS
Log2 FC
p – value and log2 FC
total = 15696 variables

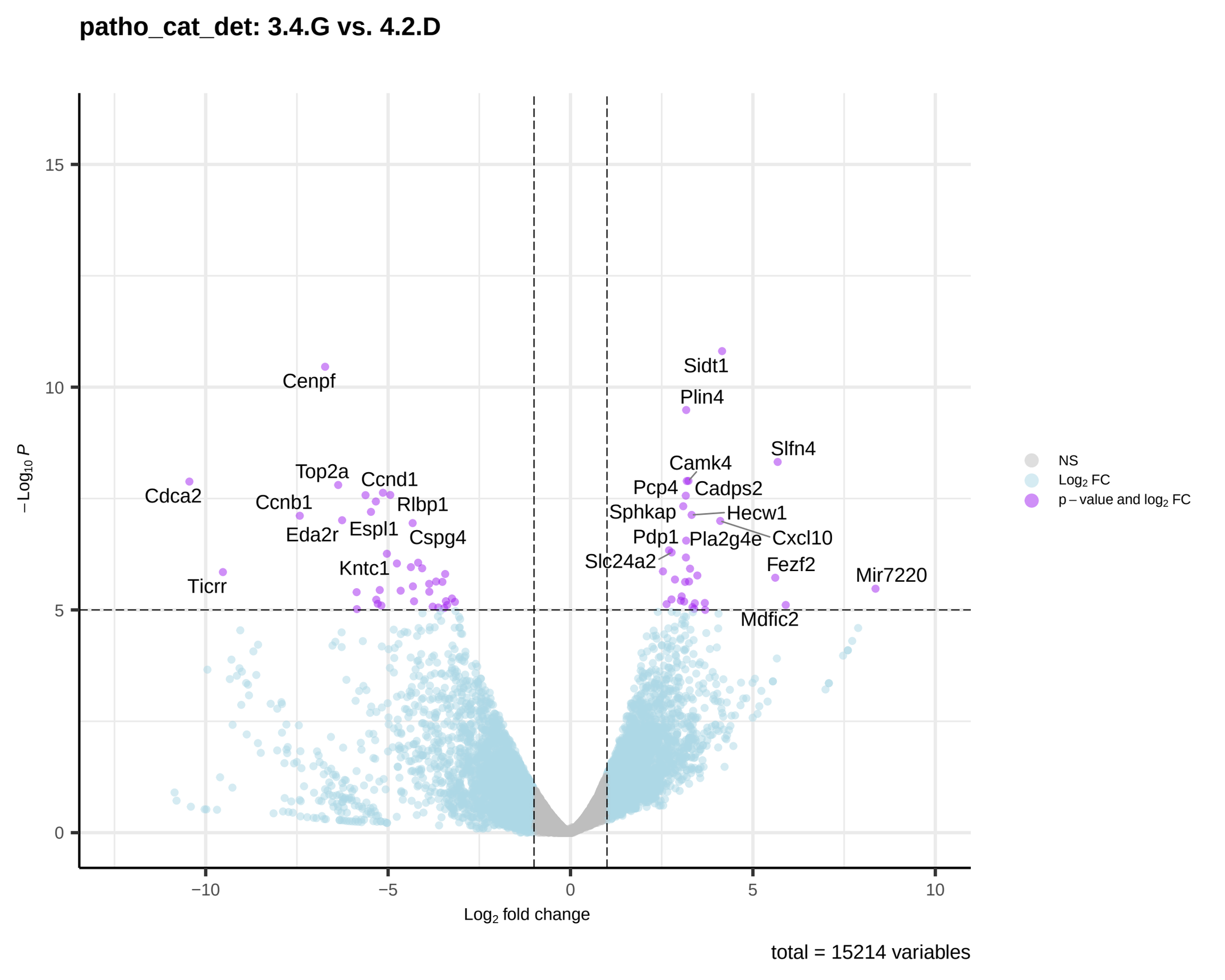

patho_cat_det: 3.3 vs. 3.4.LMG
50
40
30
20
10
0
−Log10 P
−10
−5
0
5
10
15
Log2 fold change
Prl
Gh
Pomc
Mmp9
Fbxo5
Cbln3
Fat2
Mmp10
Ark2n
Gabra6
Csnk2a2
Cxcl13
Slc17a7
Ppp1r1b
Nrgn
Fam187a
Gpnmb
Dnah10
NS
Log2 FC
p – value and log2 FC
total = 15408 variables

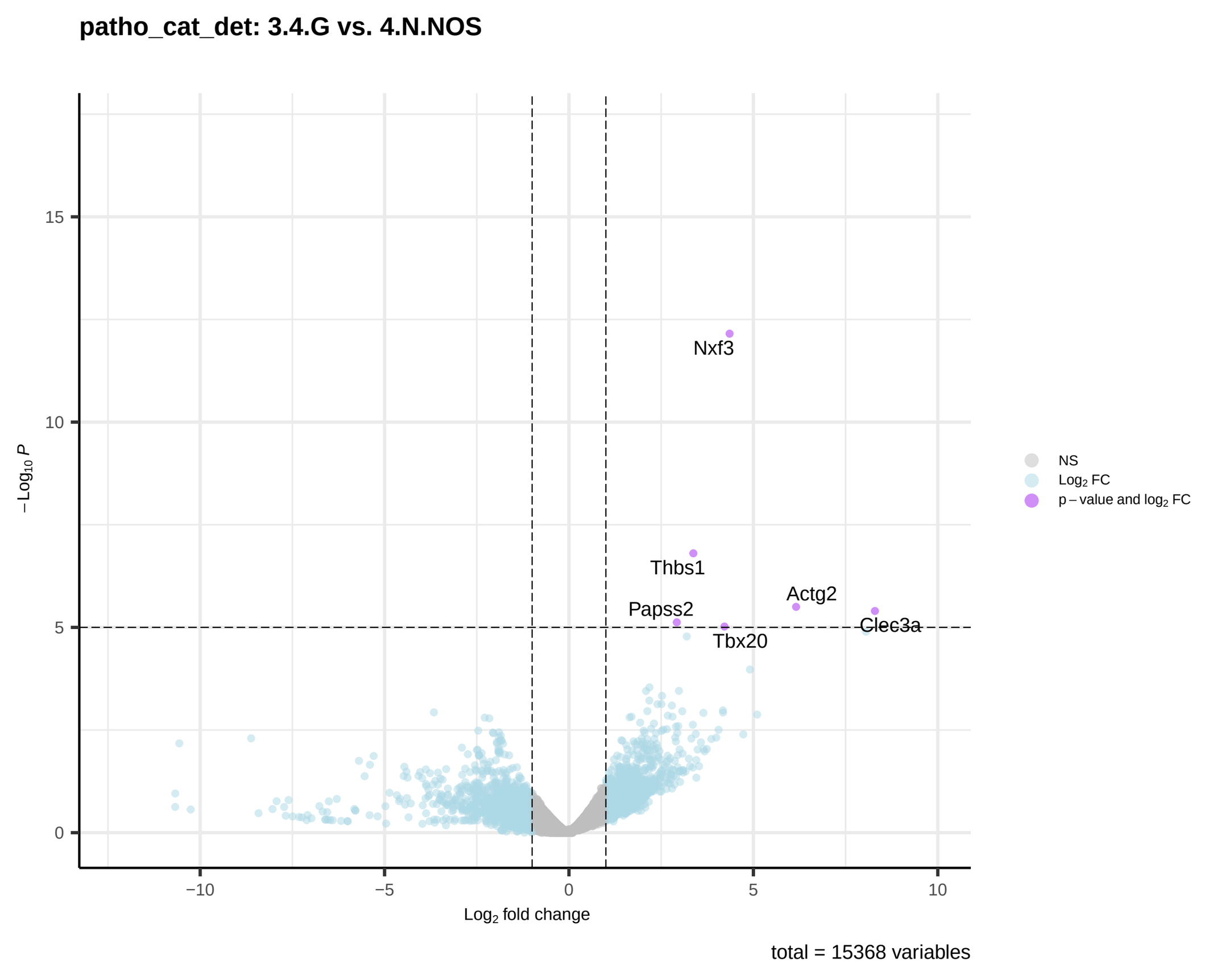

patho_cat_det: 3.3 vs. 4.2.D
Sema3d
Slfn4
Mroh3
Enpp6
Chst3
Tnc
Camk4
Plxnb3
Ccnd1
Vsnl1
Top2a
Inava
Mmp15
Gpr17
Hpca
Sox10
Moxd1
Cenpf
Cdk1
Cdca2
Itgax
Zfp990
Gm12610
Mdfic2
15
10
5
0
−10
−5
0
5
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15599 variables

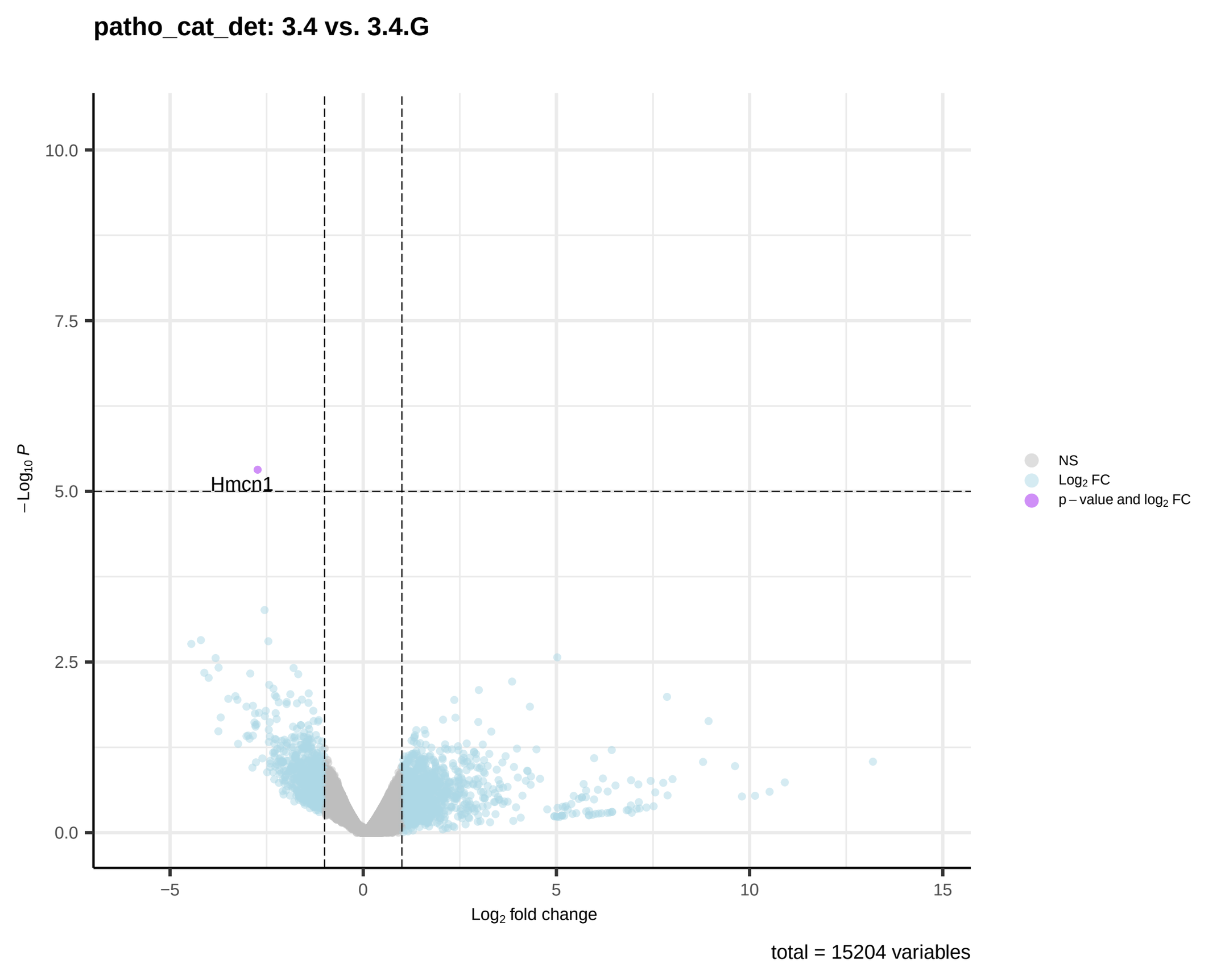

patho_cat_det: 3.3 vs. 4.N.NOS
15
10
5
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Mmp10
Pdgfrb
Acta2
Tbx20
Pcdh18
Lvrn
Npbwr1
Thbs1
Mmp9
Cxcl13
Cd248
Trpc6
Penk
Thbs2
Actg2
Aoc3
Nid1
Adamts12
Gpnmb
Abcc9
Col4a1
Itih6
Meox2
Gpr88
Tbx15
NS
Log2 FC
p – value and log2 FC
total = 15550 variables

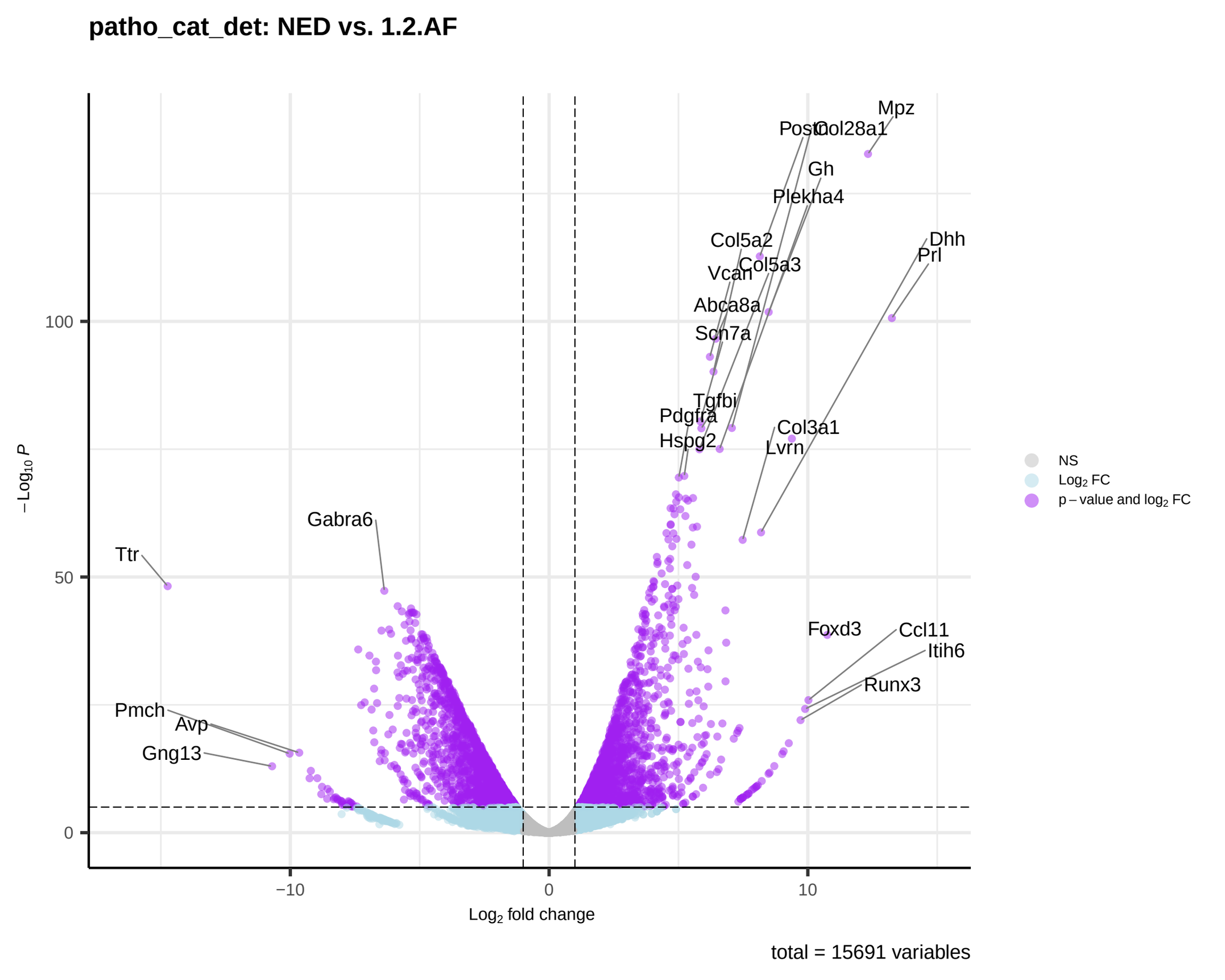

patho_cat_det: 3.4.G vs. 3.4.GSC
Trim12a
H2−Ab1
Iigp1
Cd74
Iigp1c
F830016B08Rik
Cxcl9
Mme
Cilp
Prelp
Jchain
Six3os1
Trim30d
Gbp4
Sp140l2
Retnla
Col14a1
Gbp8
Gbp2
Ccl11
H2−Aa
Il2ra
H2−Eb1
Gm36161
Rlbp1
Or1o3
Sfta3−ps
NS
Log2 FC
p − value and log2 FC
−Log10 P
Log2 fold change
total = 15509 variables

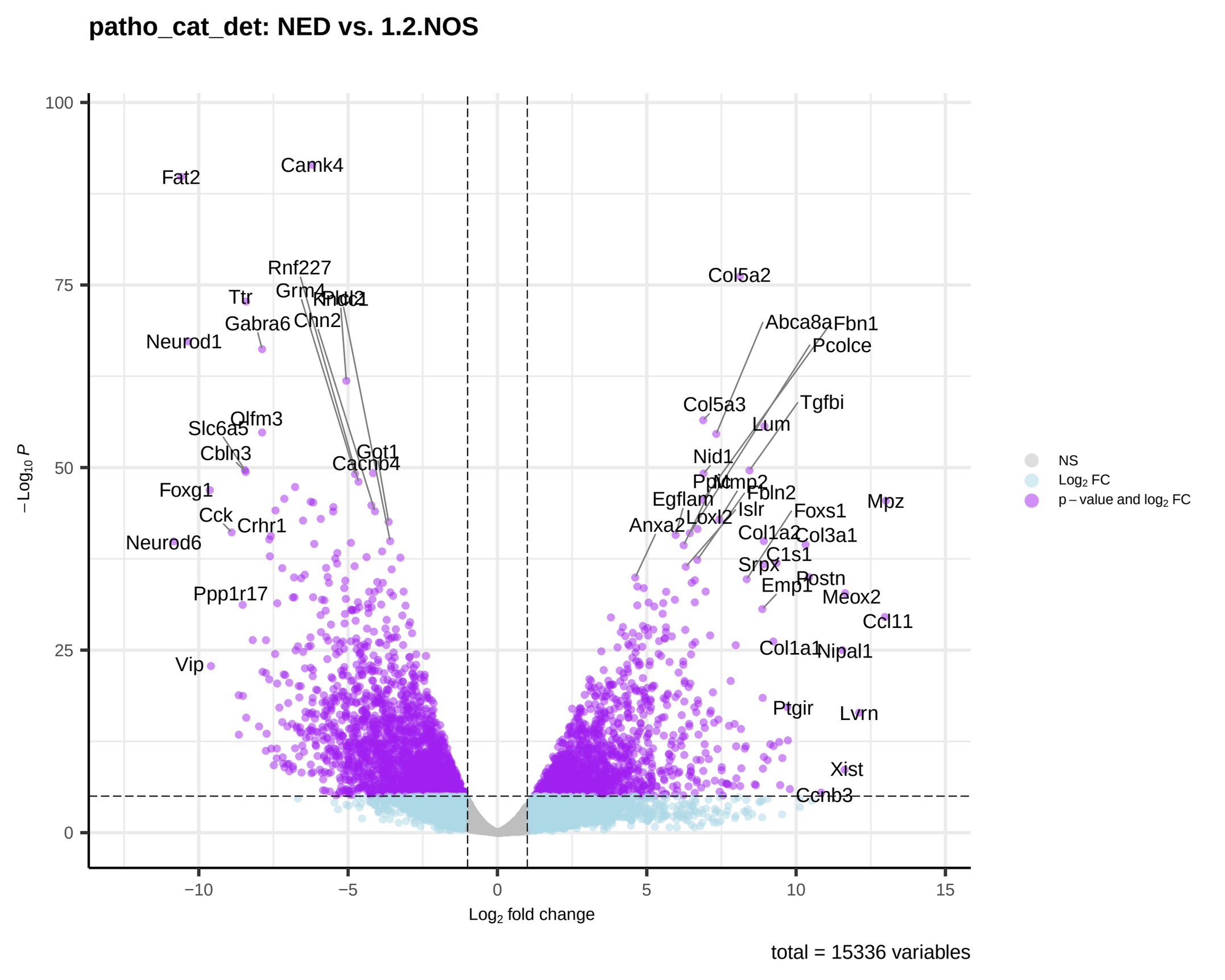

patho_cat_det: 3.4.G vs. 3.4.LMG
Gh
Pomc
Fbxo5
Ark2n
20
10
0
−15
−10
−5
0
5
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 14750 variables

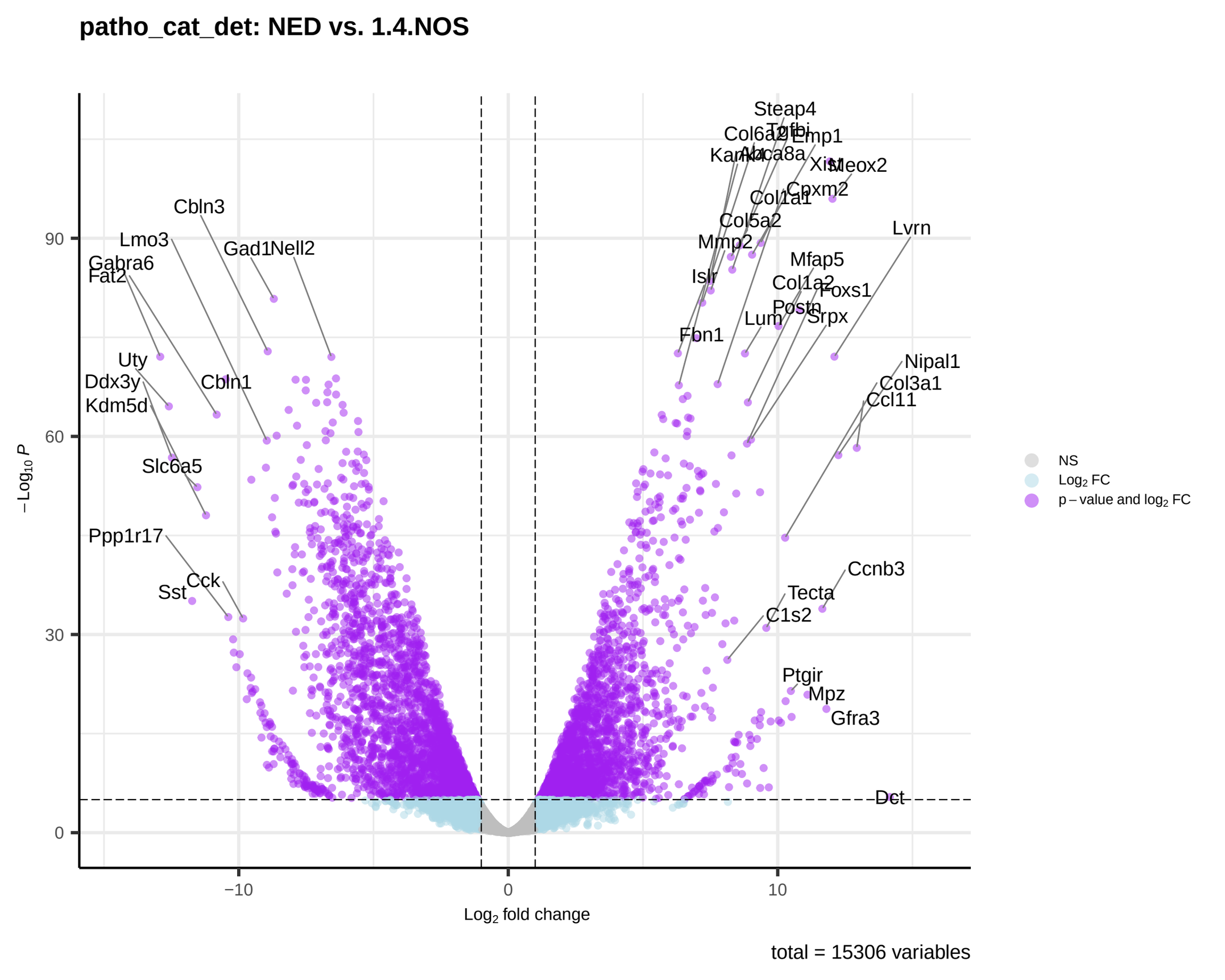

patho_cat_det: 3.4.G vs. 4.2.D
15
10
5
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Cenpf
Cdca2
Top2a
Ccnd1
Ccnb1
Rlbp1
Eda2r
Espl1
Cspg4
Kntc1
Ticrr
Sidt1
Plin4
Slfn4
Camk4
Pcp4
Cadps2
Sphkap
Hecw1
Pdp1
Pla2g4e
Cxcl10
Slc24a2
Fezf2
Mir7220
Mdfic2
NS
Log2 FC
p – value and log2 FC
total = 15214 variables

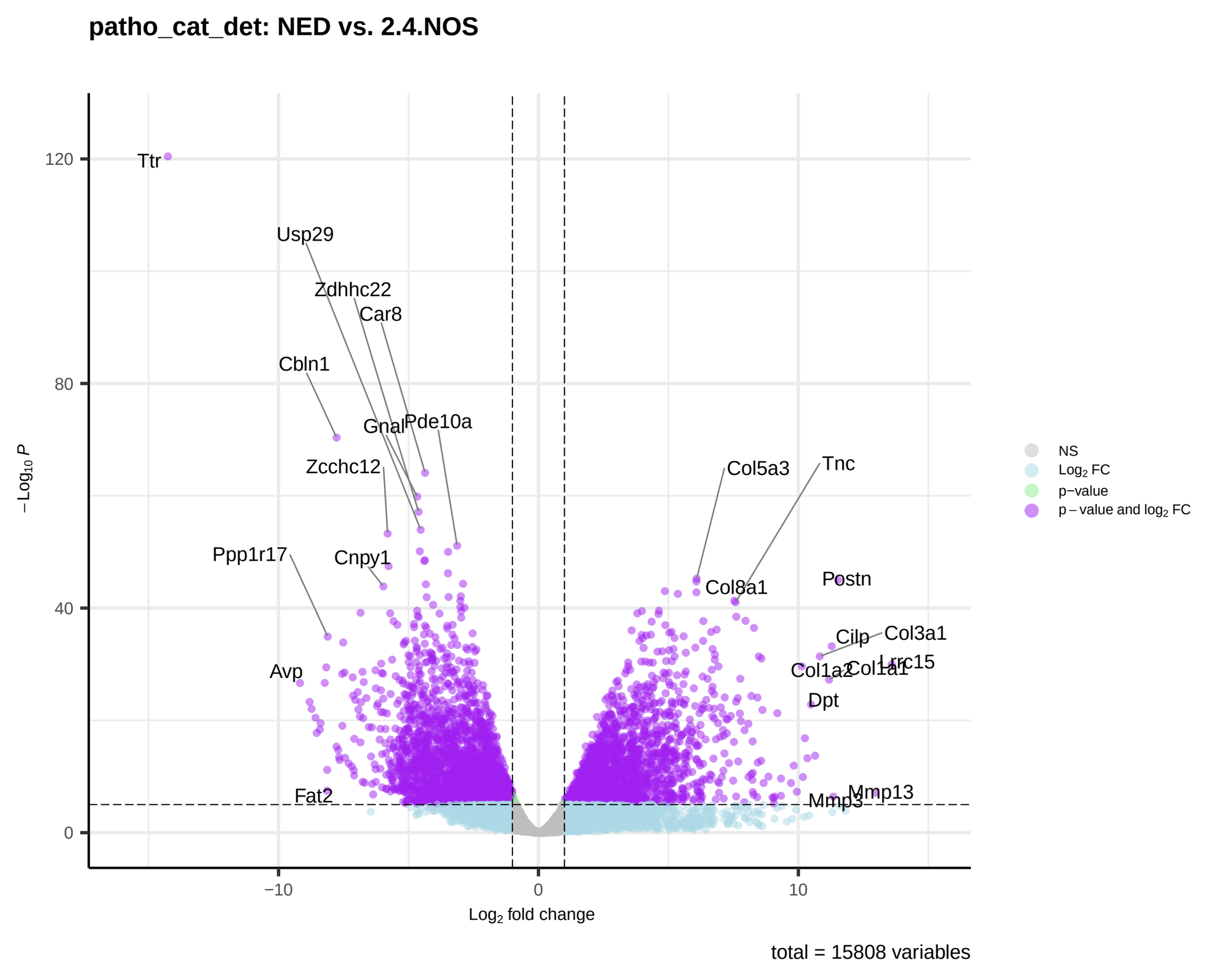

patho_cat_det: 3.4.G vs. 4.N.NOS
15
10
5
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Nxf3
Thbs1
Actg2
Papss2
Clec3a
Tbx20
NS
Log2 FC
p − value and log2 FC
total = 15368 variables

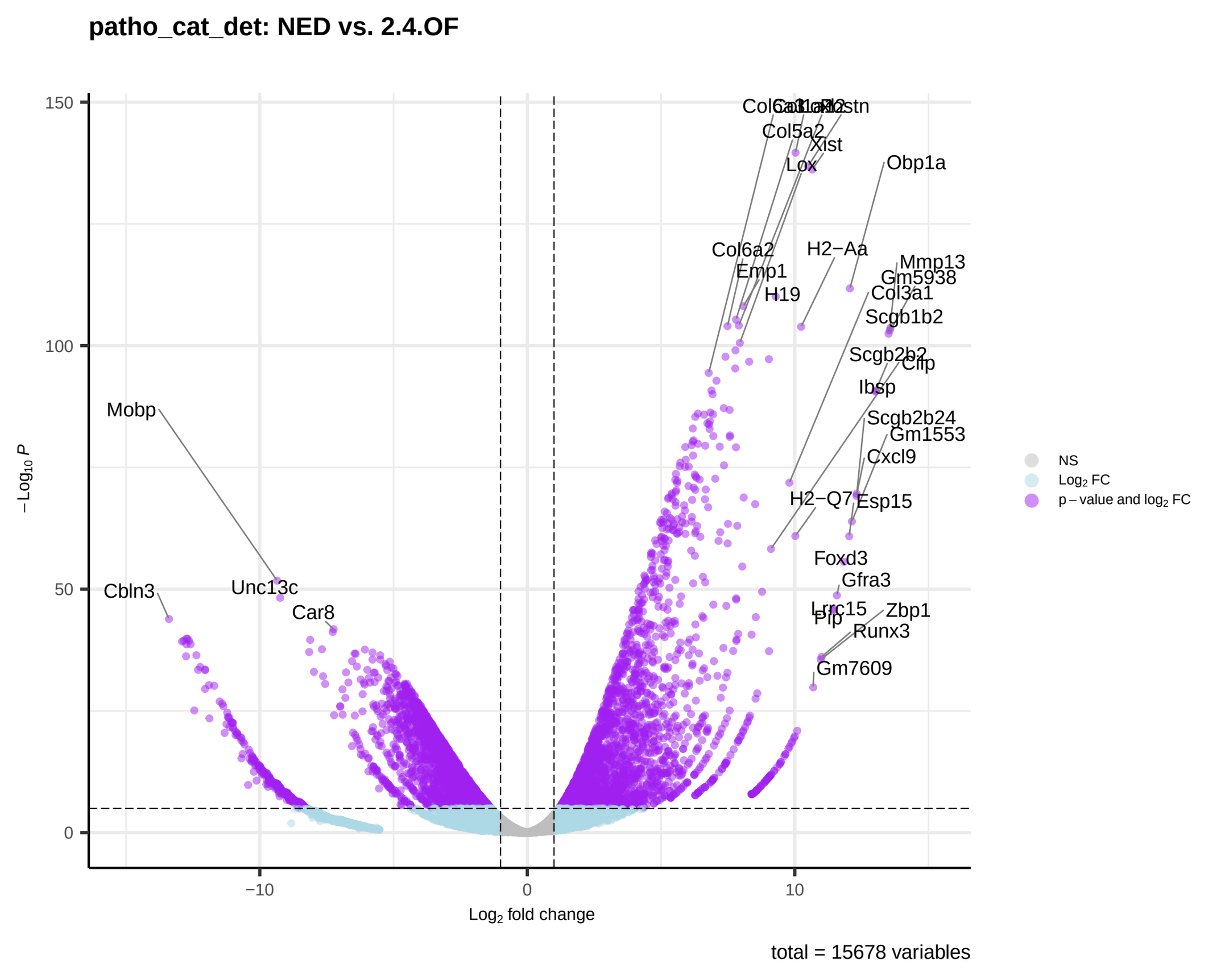

patho_cat_det: 3.4 vs. 3.4.G
10.0
7.5
5.0
2.5
0.0
−Log10 P
Hmcn1
−5
0
5
10
15
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15204 variables

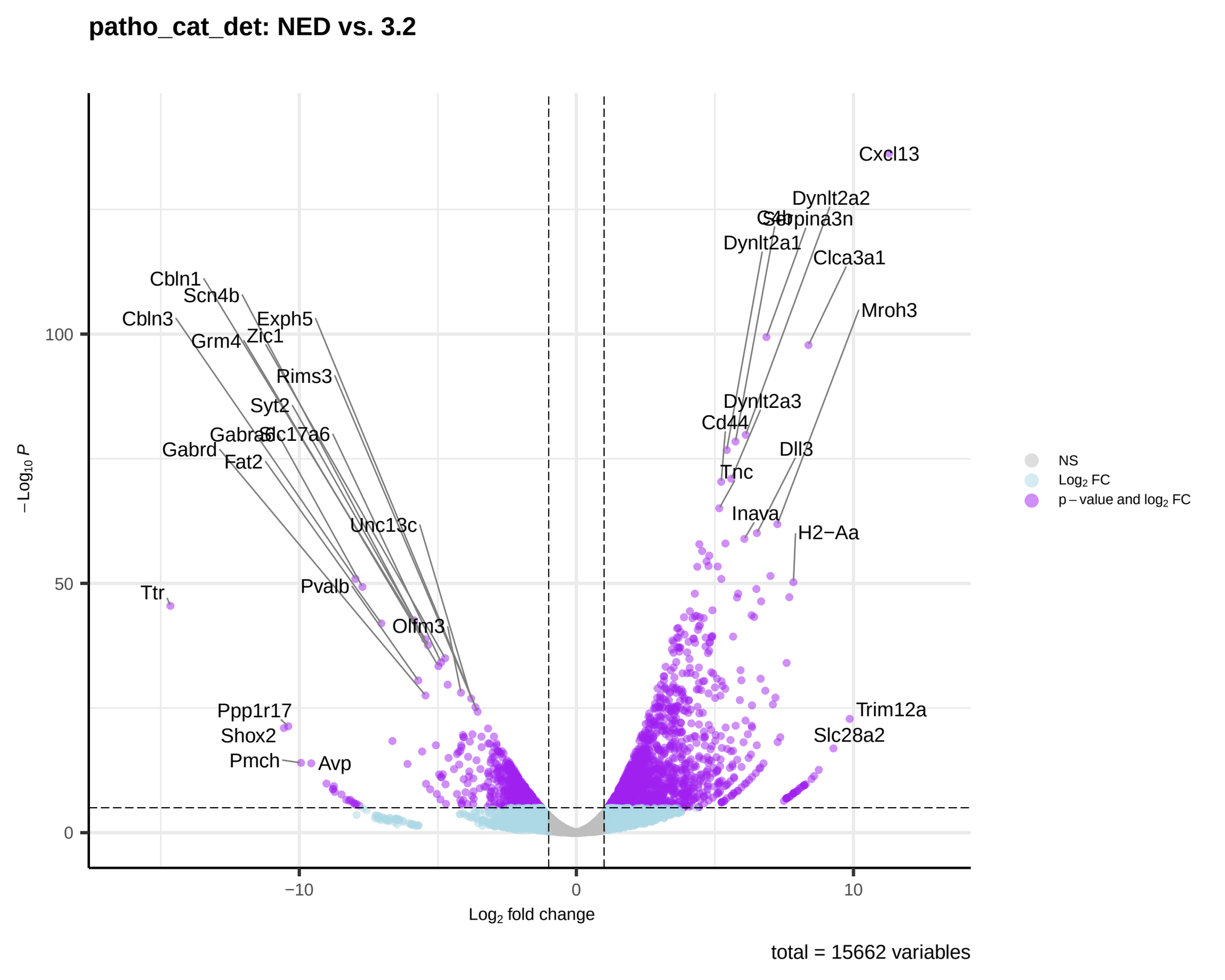

patho_cat_det: NED vs. 1.2.AF
Mpz
Postn
Col28a1
Gh
Plekha4
Col5a2
Dhh
Prl
Col5a3
Vcan
Abca8a
Scn7a
Tgfbi
Pdgfra
Hspg2
Col3a1
Lvrn
Gabra6
Ttr
Foxd3
Ccl11
Itih6
Runx3
Pmch
Avp
Gng13
100
50
0
−10
0
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15691 variables

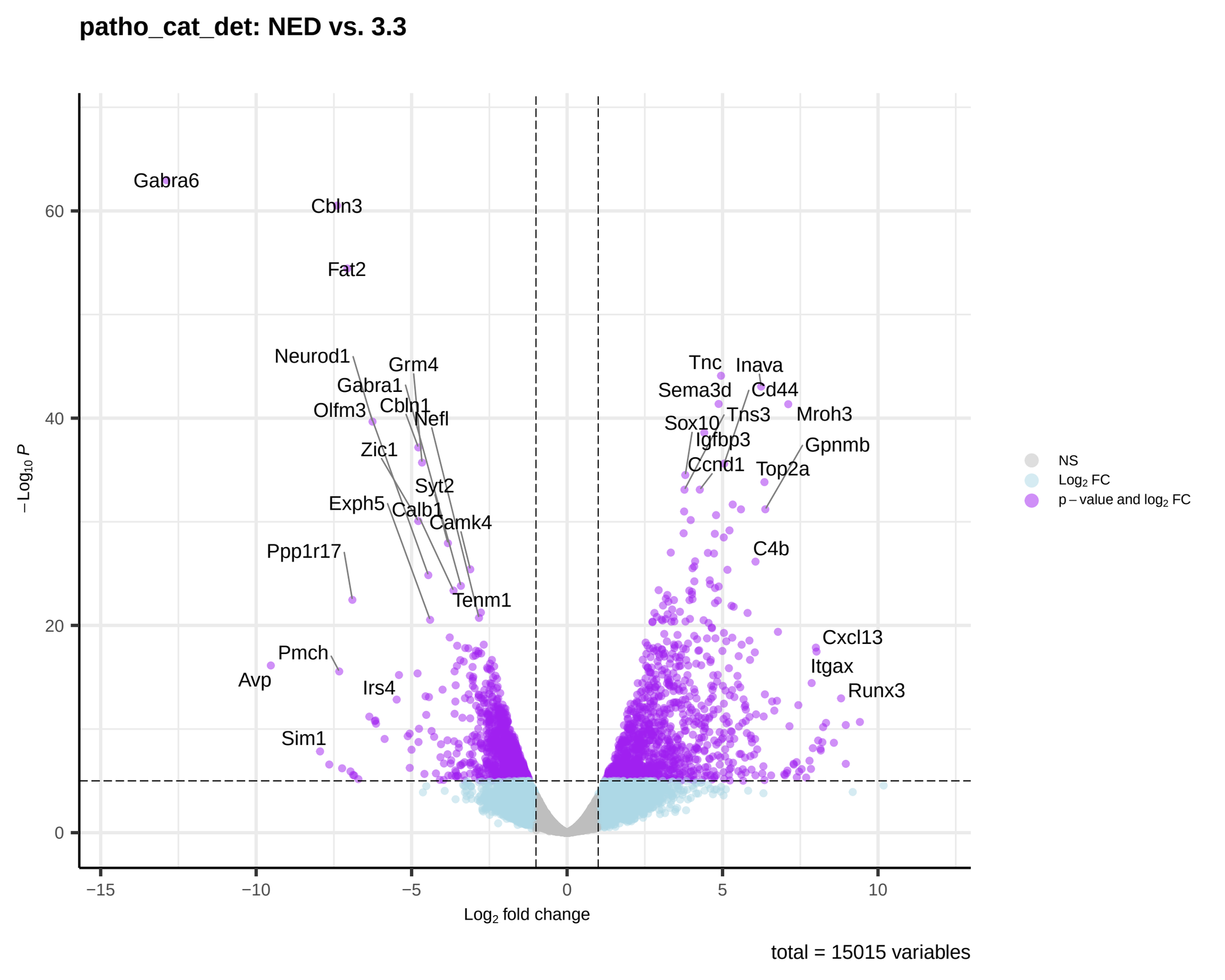

patho_cat_det: NED vs. 1.2.NOS
100
75
50
25
0
−Log10 P
−10
−5
0
5
10
15
Log2 fold change
Fat2
Camk4
Rnf227
Grm4
Ttr
Gabra6
Chn2
Neurod1
Slc6a5
Olfm3
Cbln3
Got1
Cacnb4
Foxg1
Cck
Crhr1
Neurod6
Ppp1r17
Vip
Col5a2
Abca8a
Fbn1
Pcolce
Col5a3
Tgfbi
Lum
Nid1
Mmp2
Fbln2
Egflam
Islr
Foxs1
Mpz
Anxa2
Loxl2
Col1a2
Col3a1
C1s1
Srpx
Postn
Emp1
Meox2
Ccl11
Col1a1
Nipal1
Ptgir
Lvrn
Xist
Ccnb3
NS
Log2 FC
p – value and log2 FC
total = 15336 variables

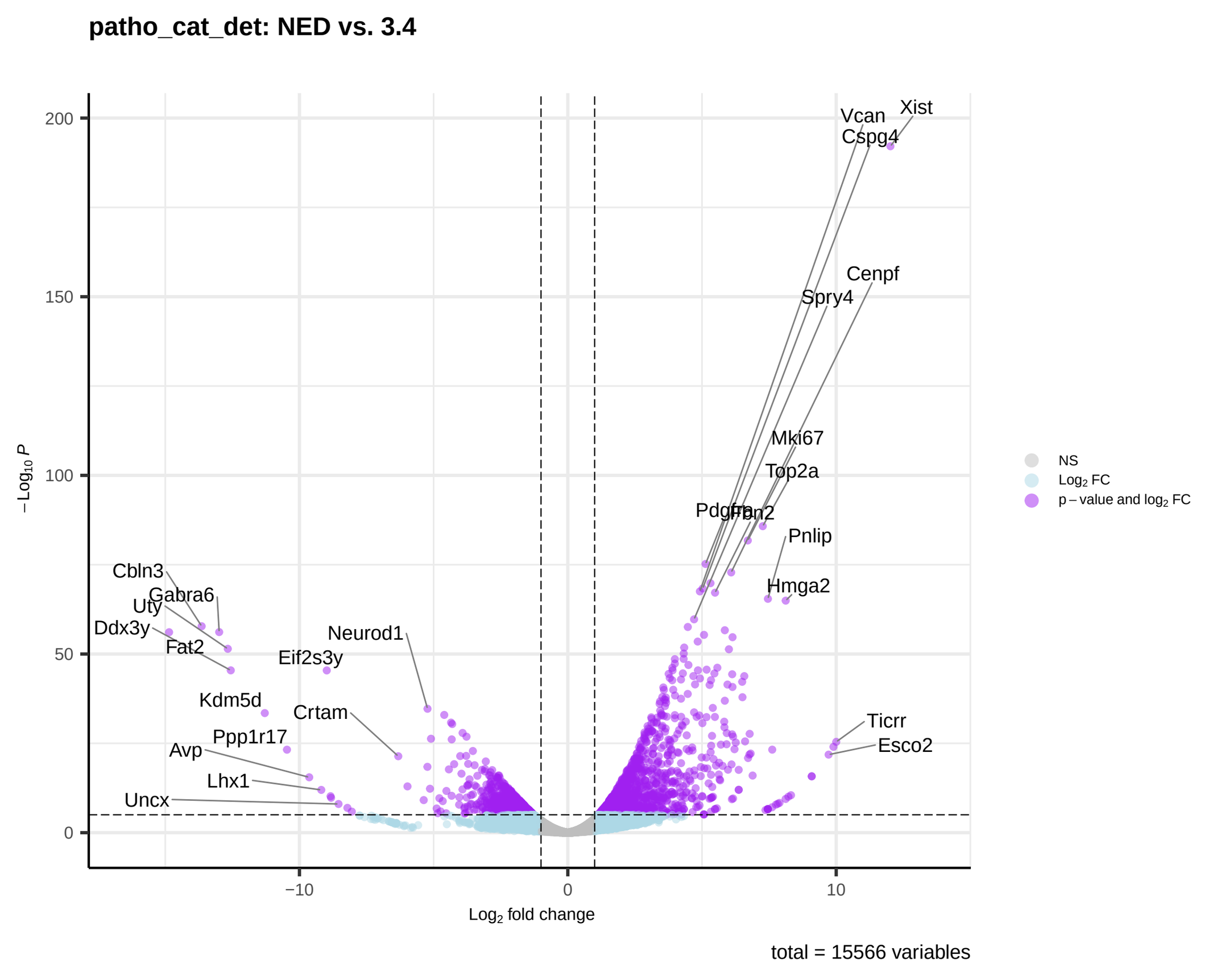

patho_cat_det: NED vs. 1.4.NOS
Steap4
Col6a2
Emp1
Xist
Meox2
Cpxm2
Col1a1
Col5a2
Lvrn
Mmp2
Mfap5
Col1a2
Foxs1
Postn
Srpx
Lum
Fbn1
Cbln3
Lmo3
Gad1
Nell2
Gabra6
Fat2
Uty
Ddx3y
Cbln1
Kdm5d
Slc6a5
Nipal1
Col3a1
Ccl11
Ppp1r17
Cck
Sst
Ccnb3
Tecta
C1s2
Ptgir
Mpz
Gfra3
Dct
90
60
30
0
−10
0
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15306 variables

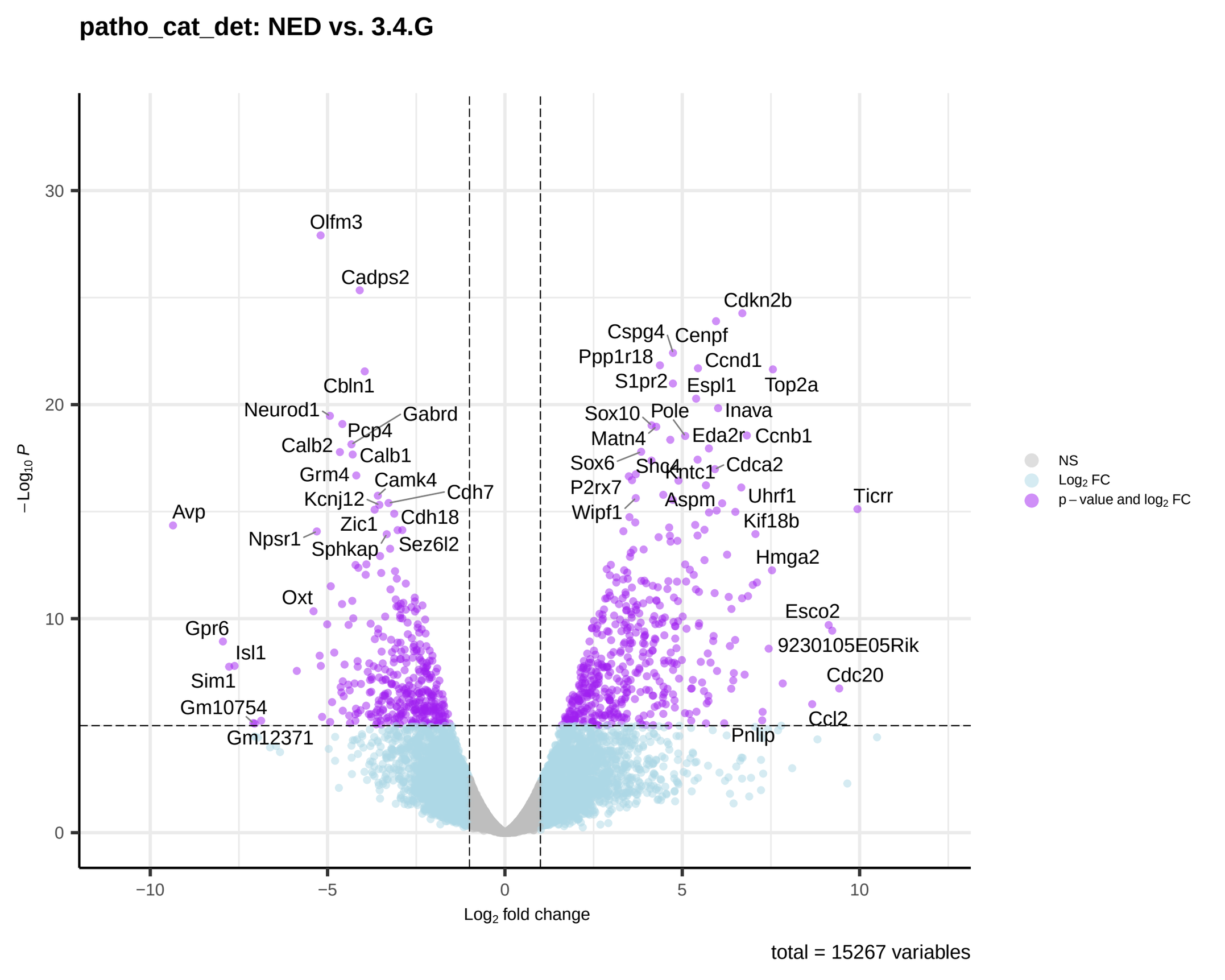

patho_cat_det: NED vs. 2.4.NOS
120
80
40
0
−Log10 P
Ttr
Usp29
Zdhhc22
Car8
Cbln1
Gnal
Pde10a
Zcchc12
Ppp1r17
Cnpy1
Avp
Fat2
Col5a3
Tnc
Col8a1
Postn
Cilp
Col3a1
Lrrc15
Col1a2
Col1a1
Dpt
Mmp3
Mmp13
−10
0
10
Log2 fold change
NS
Log2 FC
p−value
p − value and log2 FC
total = 15808 variables

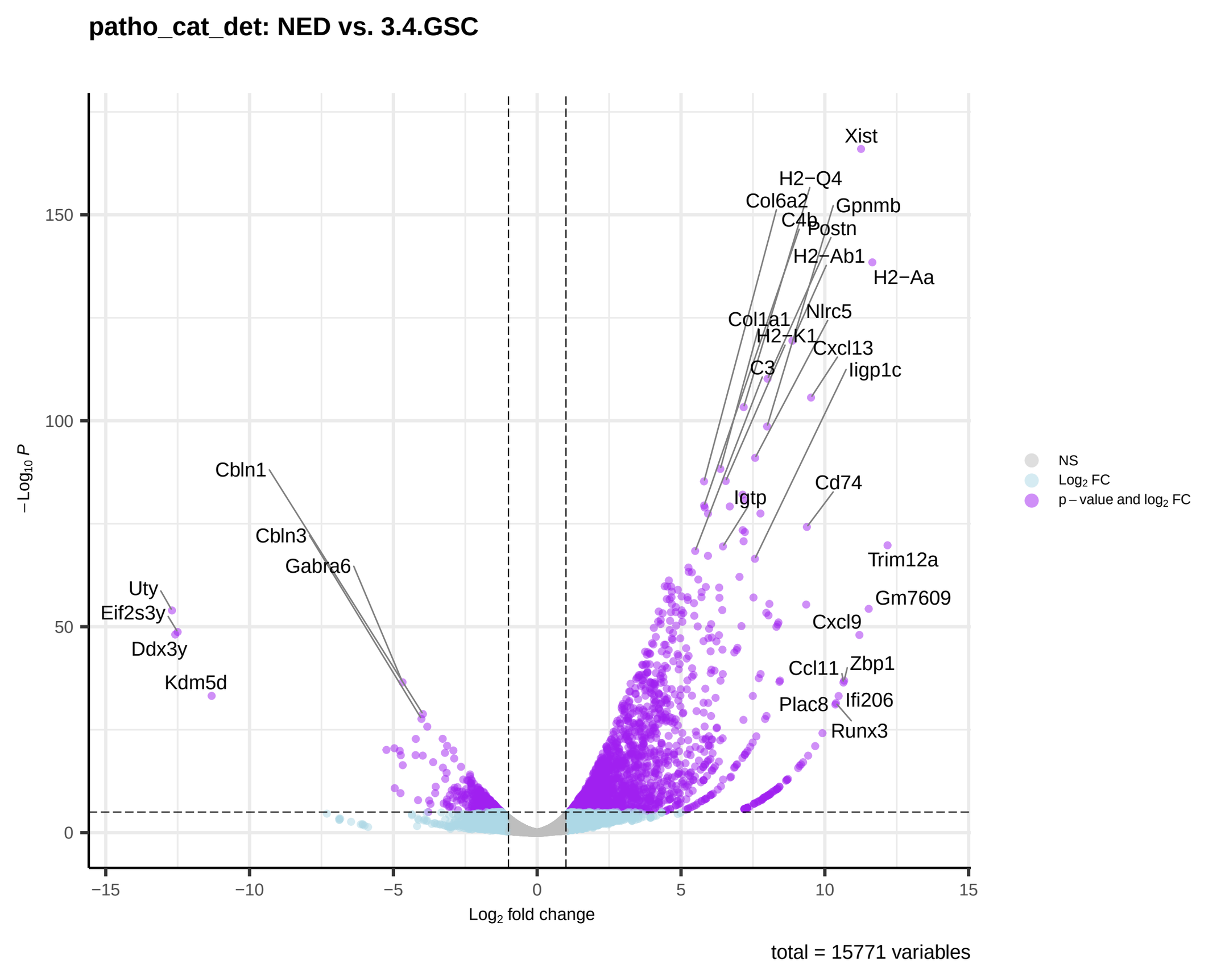

patho_cat_det: NED vs. 2.4.OF
150
100
50
0
−Log10 P
−10
0
10
Log2 fold change
Mobp
Cbln3
Unc13c
Car8
Col6a2
Col5a2
Xist
Lox
Obp1a
H2−Aa
Emp1
H19
Mmp13
Gm5938
Col3a1
Scgb1b2
Scgb2b2
Clip
Ibsp
Scgb2b24
Gm1553
Cxcl9
H2−Q7
Esp15
Foxd3
Gfra3
Lrrc15
Pip
Zbp1
Runx3
Gm7609
NS
Log2 FC
p − value and log2 FC
total = 15678 variables

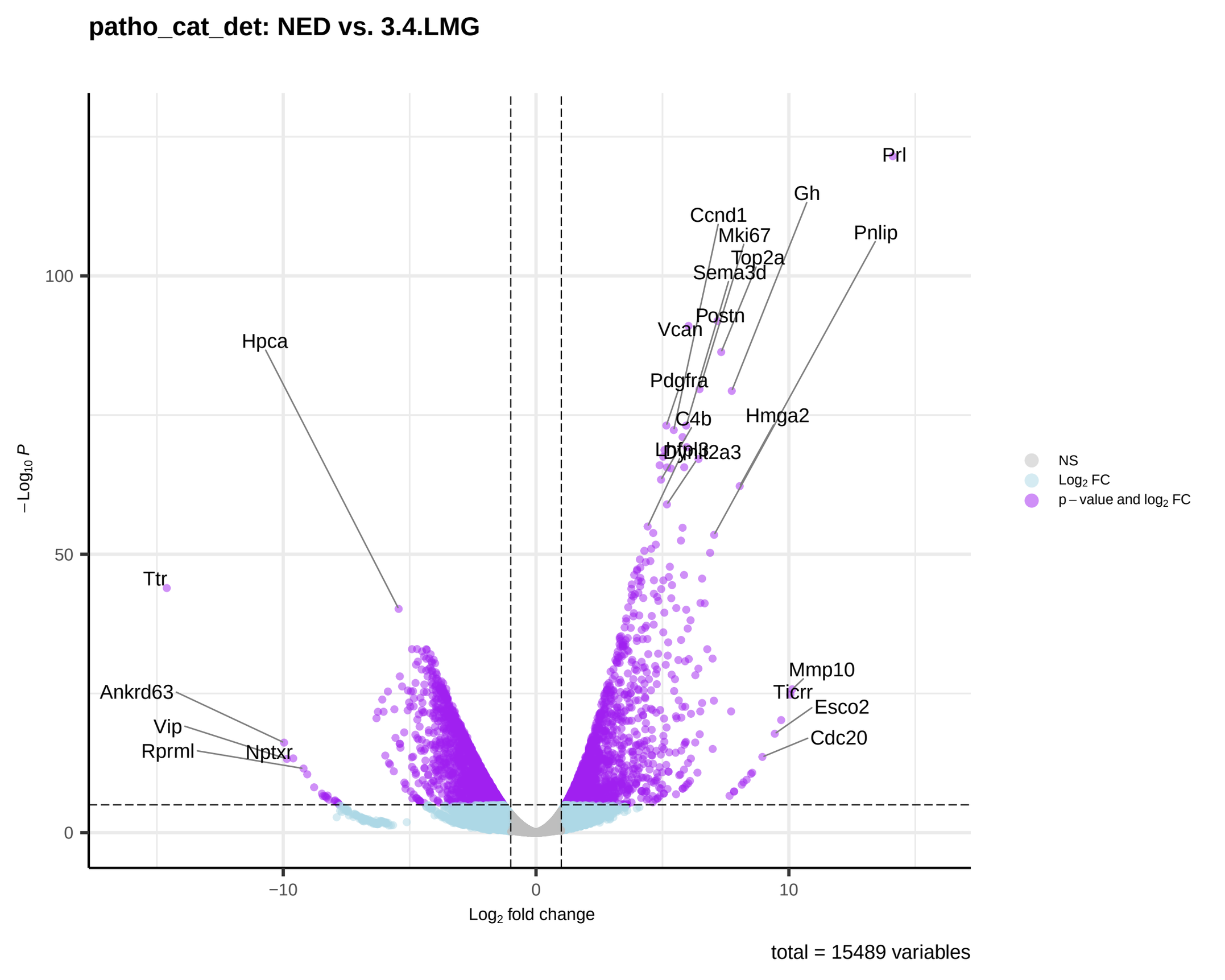

patho_cat_det: NED vs. 3.2
Cxcl13
Dynlt2a2
Serpina3n
Dynlt2a1
Clca3a1
Mroh3
Cbln1
Scn4b
Cbln3
Exph5
Grm4
Zic1
Rims3
Syt2
Dynlt2a3
Cd44
Gabrd
Fat2
Dll3
Tnc
Inava
H2−Aa
Unc13c
Ttr
Pvalb
Olfm3
Ppp1r17
Shox2
Pmch
Avp
Trim12a
Slc28a2
100
50
0
−10
0
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15662 variables


patho_cat_det: NED vs. 3.3
Gabra6
Cbln3
Fat2
Neurod1
Grm4
Gabra1
Olfm3
Cbln1
Nefl
Zic1
Syt2
Exph5
Calb1
Camk4
Ppp1r17
Tenm1
Pmch
Avp
Irs4
Sim1
Tnc
Inava
Sema3d
Cd44
Tns3
Mroh3
Sox10
Igfbp3
Gpnmb
Ccnd1
Top2a
C4b
Cxcl13
Itgax
Runx3
60
40
20
0
−15
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and $\log_2$ FC
total = 15015 variables

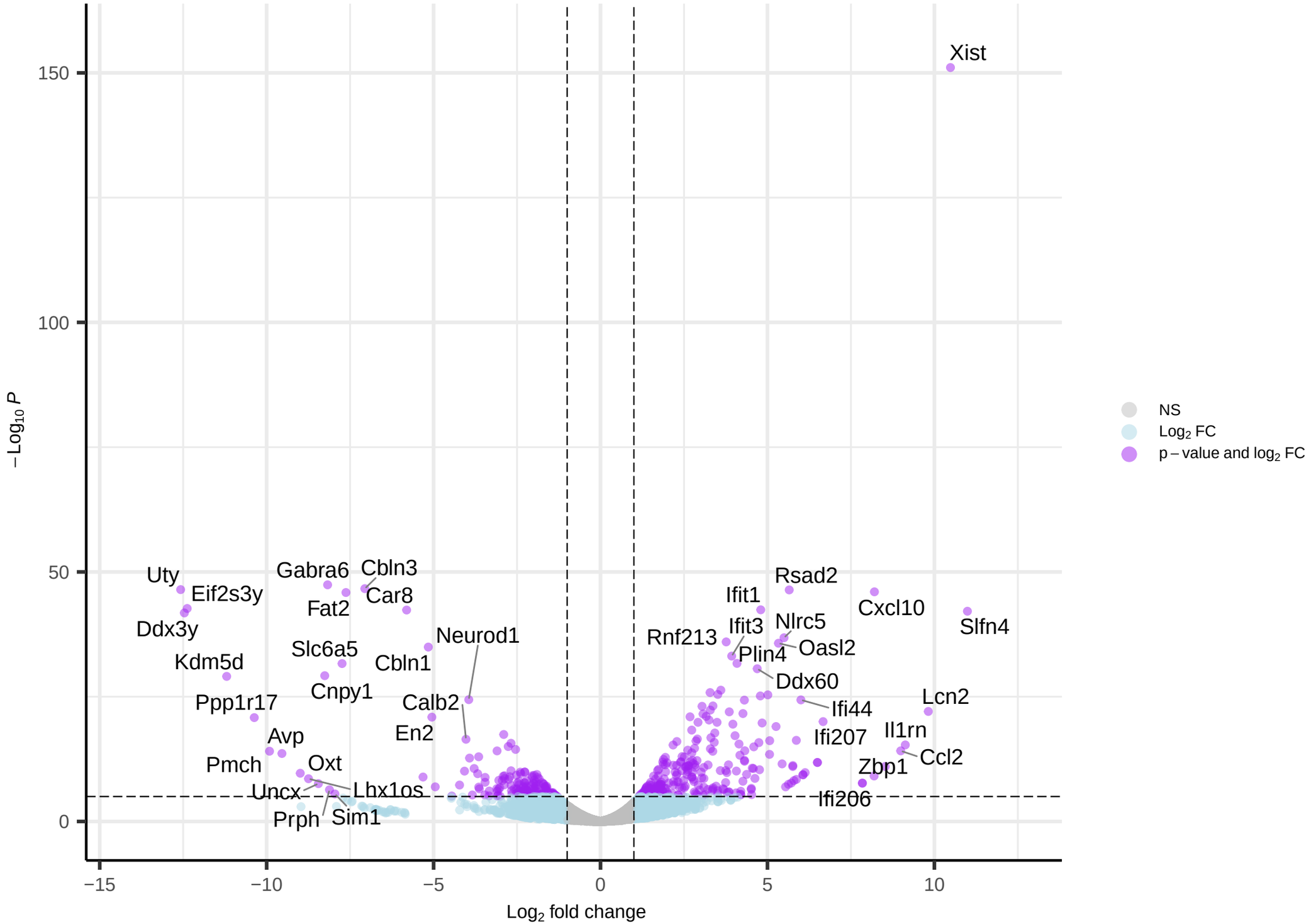

patho_cat_det: NED vs. 3.4
200
150
100
50
0
−Log10 P
−10
0
10
Log2 fold change
Xist
Vcan
Cspg4
Cenpf
Spry4
Mki67
Top2a
Pdgfra
Pnlip
Hmga2
Ticrr
Esco2
Cbln3
Gabra6
Uty
Ddx3y
Fat2
Neurod1
Eif2s3y
Kdm5d
Crtam
Ppp1r17
Avp
Lhx1
Uncx
NS
Log2 FC
p – value and log2 FC
total = 15566 variables


patho_cat_det: NED vs. 3.4.G
30
20
10
0
−Log10 P
Olfm3
Cadps2
Cbln1
Neurod1
Gabrd
Pcp4
Calb2
Calb1
Grm4
Camk4
Kcnj12
Cdh7
Avp
Zic1
Cdh18
Npsr1
Sphkap
Sez6l2
Oxt
Gpr6
Isl1
Sim1
Gm10754
Gm12371
Cdkn2b
Cspg4
Cenpf
Ppp1r18
Ccnd1
S1pr2
Espl1
Top2a
Sox10
Pole
Inava
Matn4
Eda2r
Ccnb1
Sox6
Shq4
Kntc1
Cdca2
P2rx7
Aspm
Uhrf1
Ticrr
Wipf1
Kif18b
Hmga2
Esco2
9230105E05Rik
Cdc20
Ccl2
Pnlip
−10
−5
0
5
10
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 15267 variables

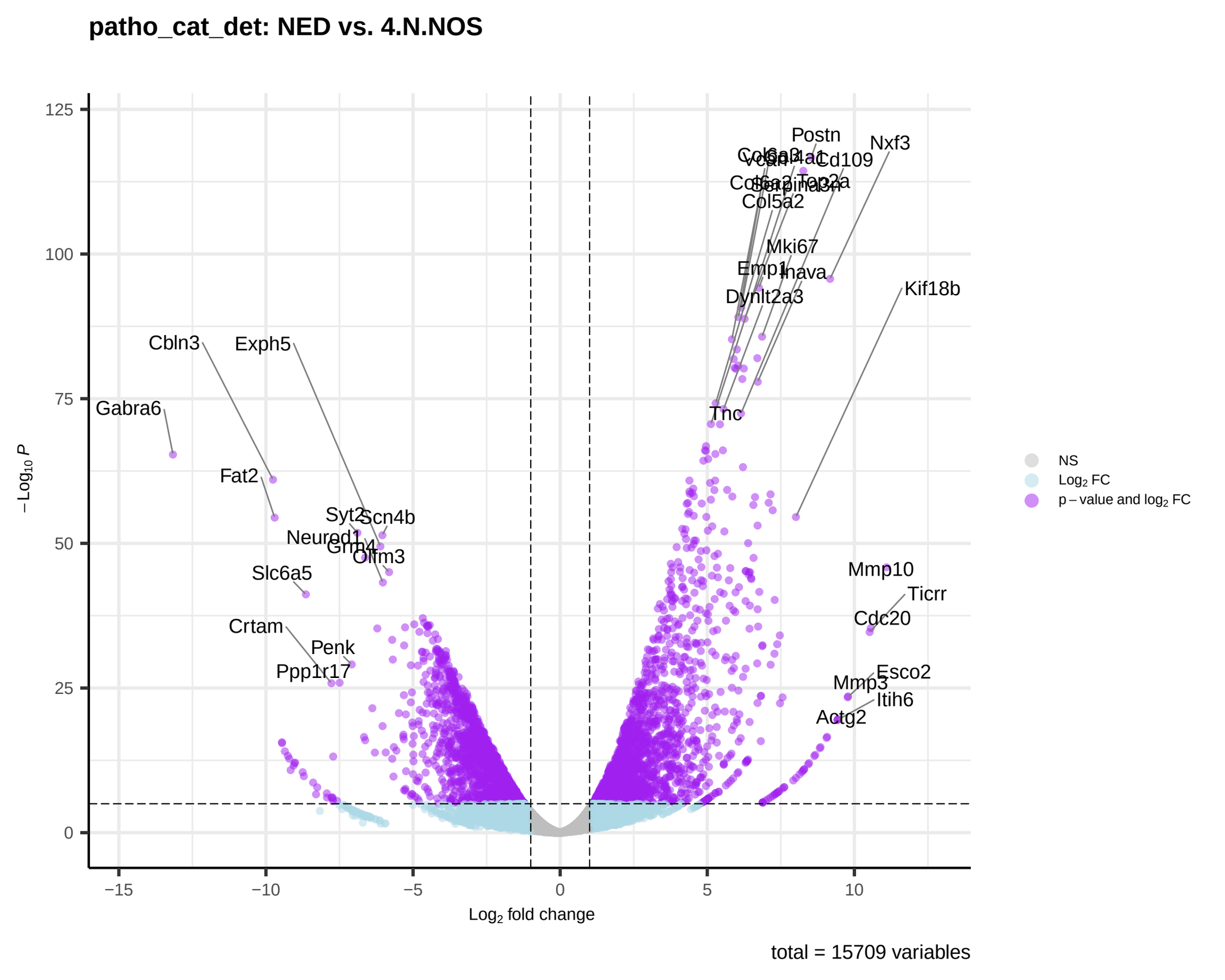

patho_cat_det: NED vs. 3.4.GSC
Xist
H2−Q4
Col6a2
Gpnmb
C4b
Postn
H2−Ab1
H2−Aa
Nlrc5
Col1a1
H2−K1
Cxcl13
C3
Iigp1c
Cbln1
Cd74
Igtp
Cbln3
Gabra6
Trim12a
Uty
Gm7609
Eif2s3y
Cxcl9
Ddx3y
Ccl11
Zbp1
Kdm5d
Plac8
Ifi206
Runx3
150
100
50
0
−Log10 P
−15
−10
−5
0
5
10
15
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15771 variables

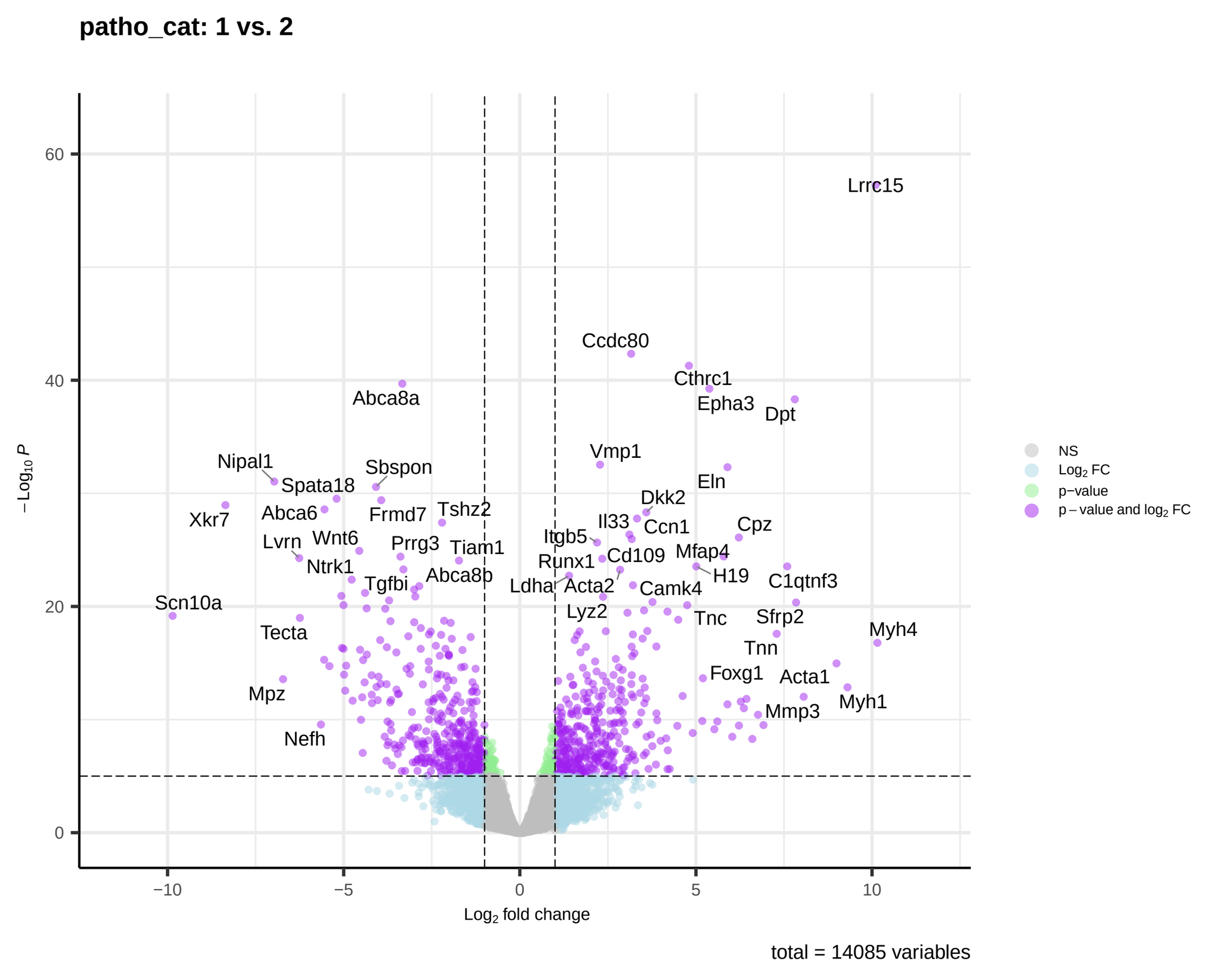

patho_cat_det: NED vs. 3.4.LMG
Prl
Gh
Ccnd1
Mki67
Pnlip
Top2a
Sema3d
Postn
Vcan
Hpca
Pdgfra
C4b
Hmga2
Dynll2a3
Ttr
Mmp10
Ticrr
Esco2
Ankrd63
Vip
Rprml
Nptxr
Cdc20
100
50
0
−10
0
10
−Log10 P
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 15489 variables

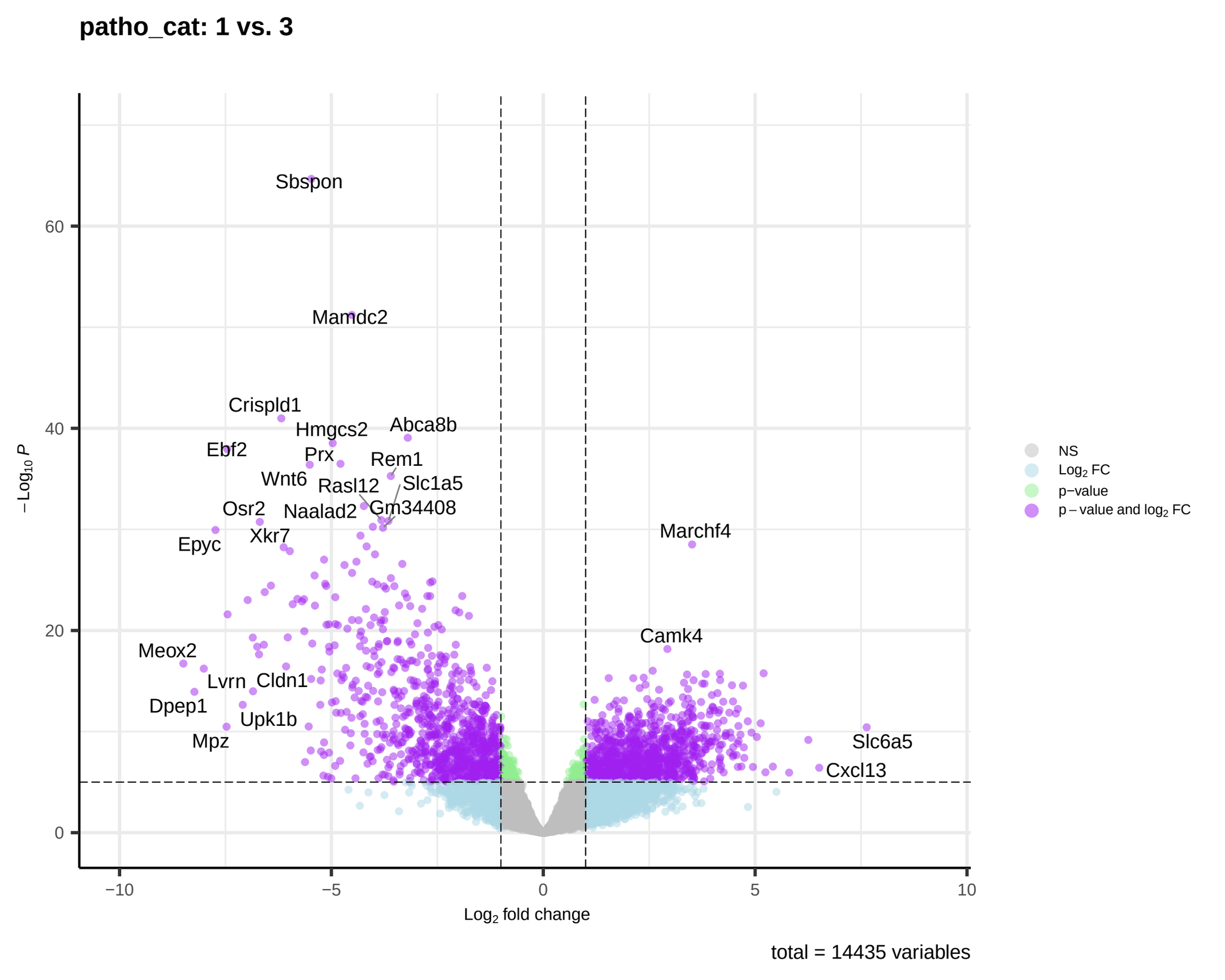
patho_cat_det: NED vs. 4.2.D

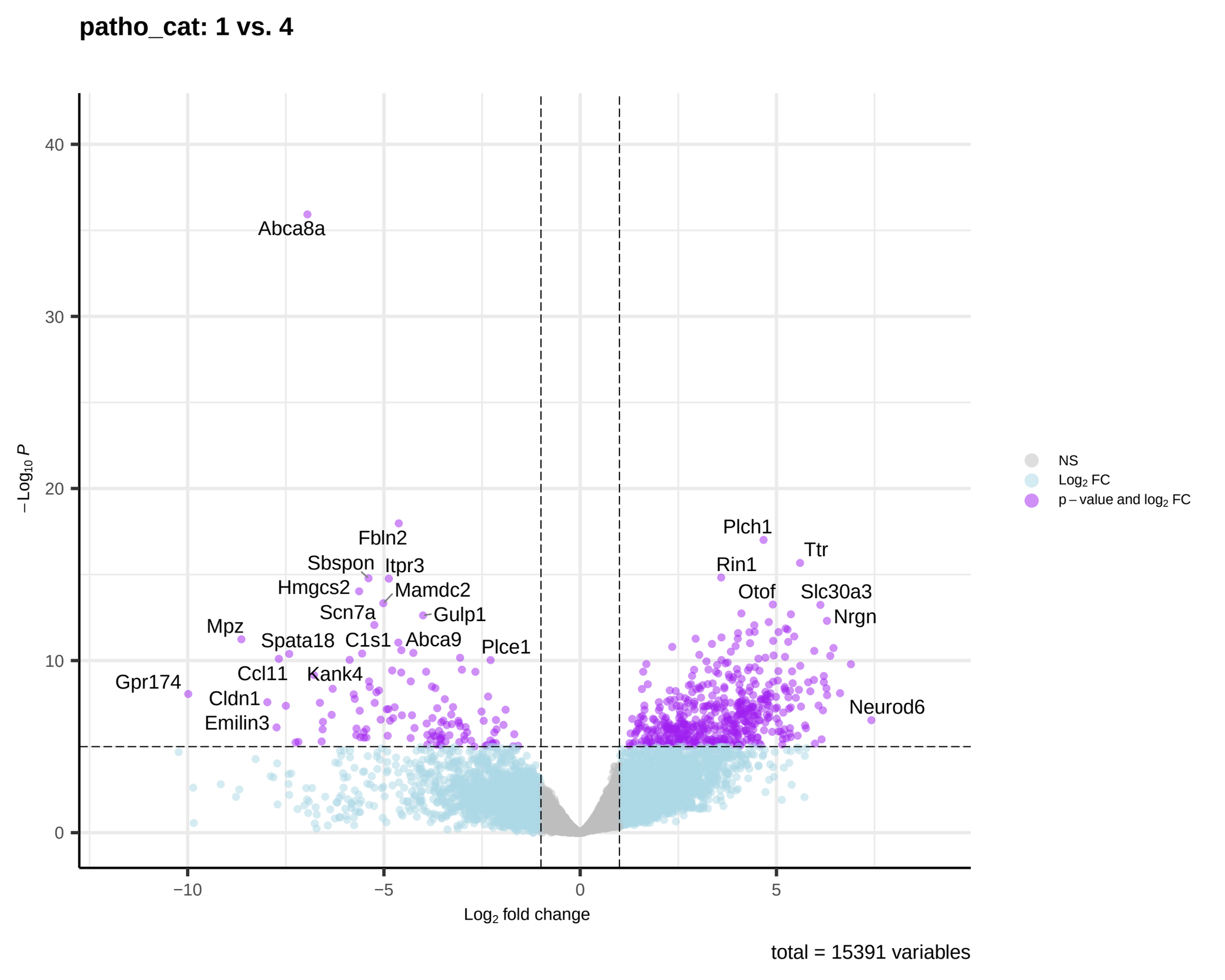


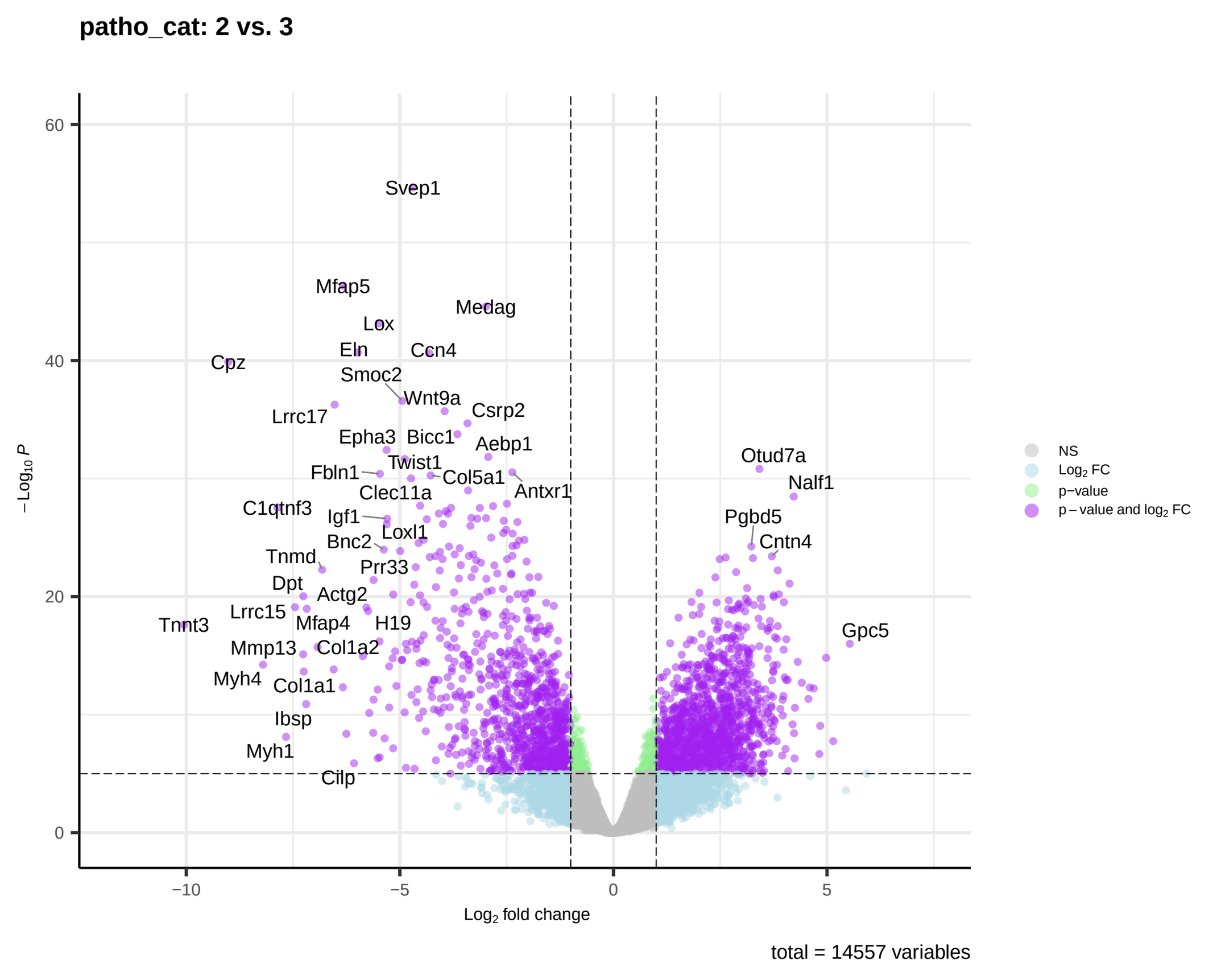
total = 15353 variables

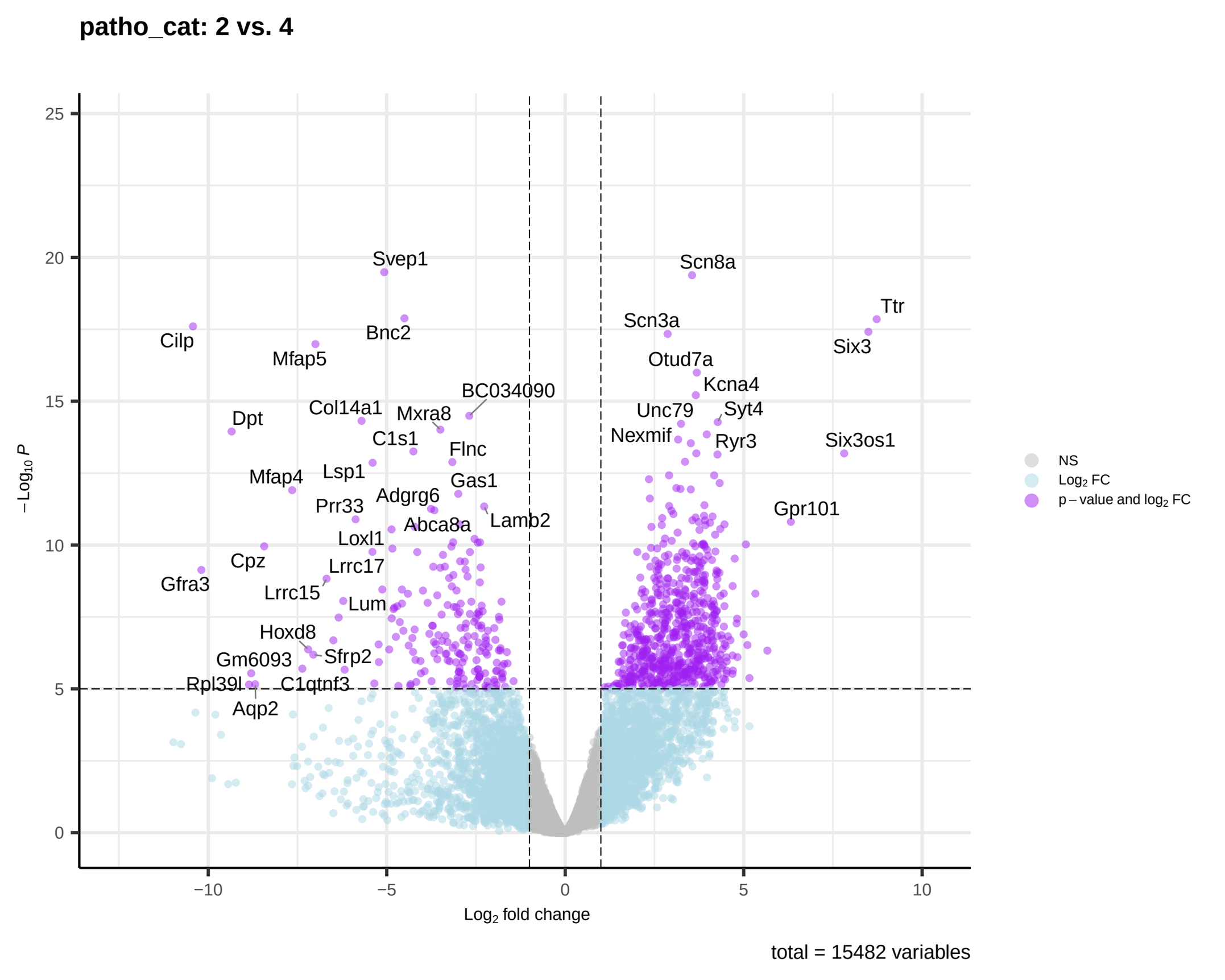

patho_cat_det: NED vs. 4.N.NOS
125
100
75
50
25
0
−Log10 P
−15
−10
−5
0
5
10
Log2 fold change
Postn
Nxf3
Cd109
Col5a2
Mki67
Emp1
Inava
Dynlt2a3
Kif18b
Tnc
Cbln3
Exph5
Gabra6
Fat2
Syt2
Scn4b
Neurod1
Grm4
Olfm3
Slc6a5
Crtam
Penk
Ppp1r17
Mmp10
Ticrr
Cdc20
Esco2
Mmp3
Itih6
Actg2
NS
Log2 FC
p – value and log2 FC
total = 15709 variables

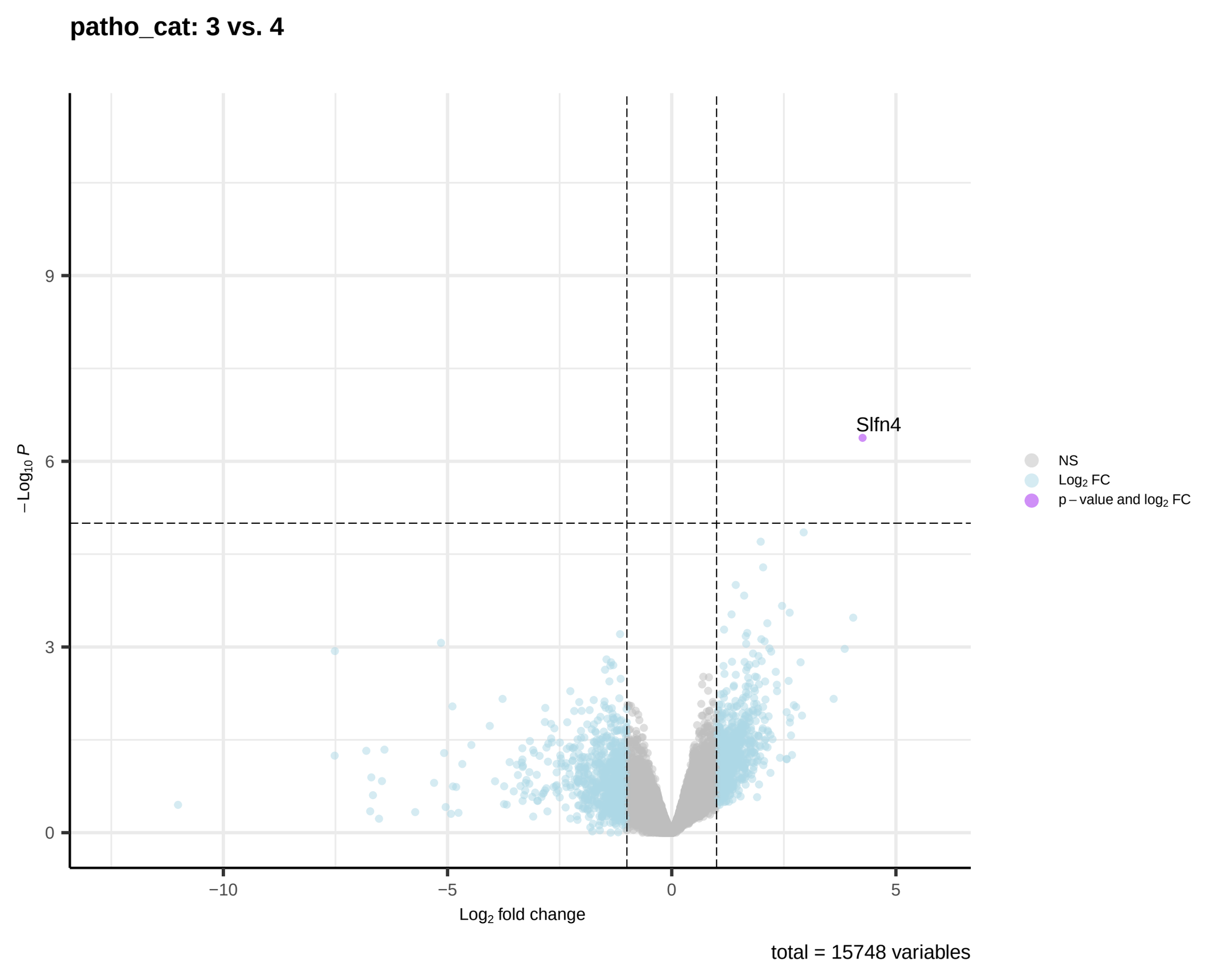

patho_cat: 1 vs. 2
60
40
20
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Lrrc15
Ccdc80
Cthrc1
Epha3
Dpt
Abca8a
Vmp1
Eln
Nipal1
Sbspon
Spata18
Dkk2
Xkr7
Abca6
Frmd7
Tshz2
Il33
Ccn1
Cpz
Itgb5
Lvrn
Wnt6
Prrg3
Tiam1
Cd109
Mfap4
Runx1
Ntrk1
H19
C1qtnf3
Tgfbi
Abca8b
Ldha
Acta2
Camk4
Scn10a
Lyz2
Tnc
Sfrp2
Tecta
Myh4
Tnn
Foxg1
Acta1
Mpz
Myh1
Mmp3
Nefh
NS
Log2 FC
p−value
p − value and log2 FC
total = 14085 variables

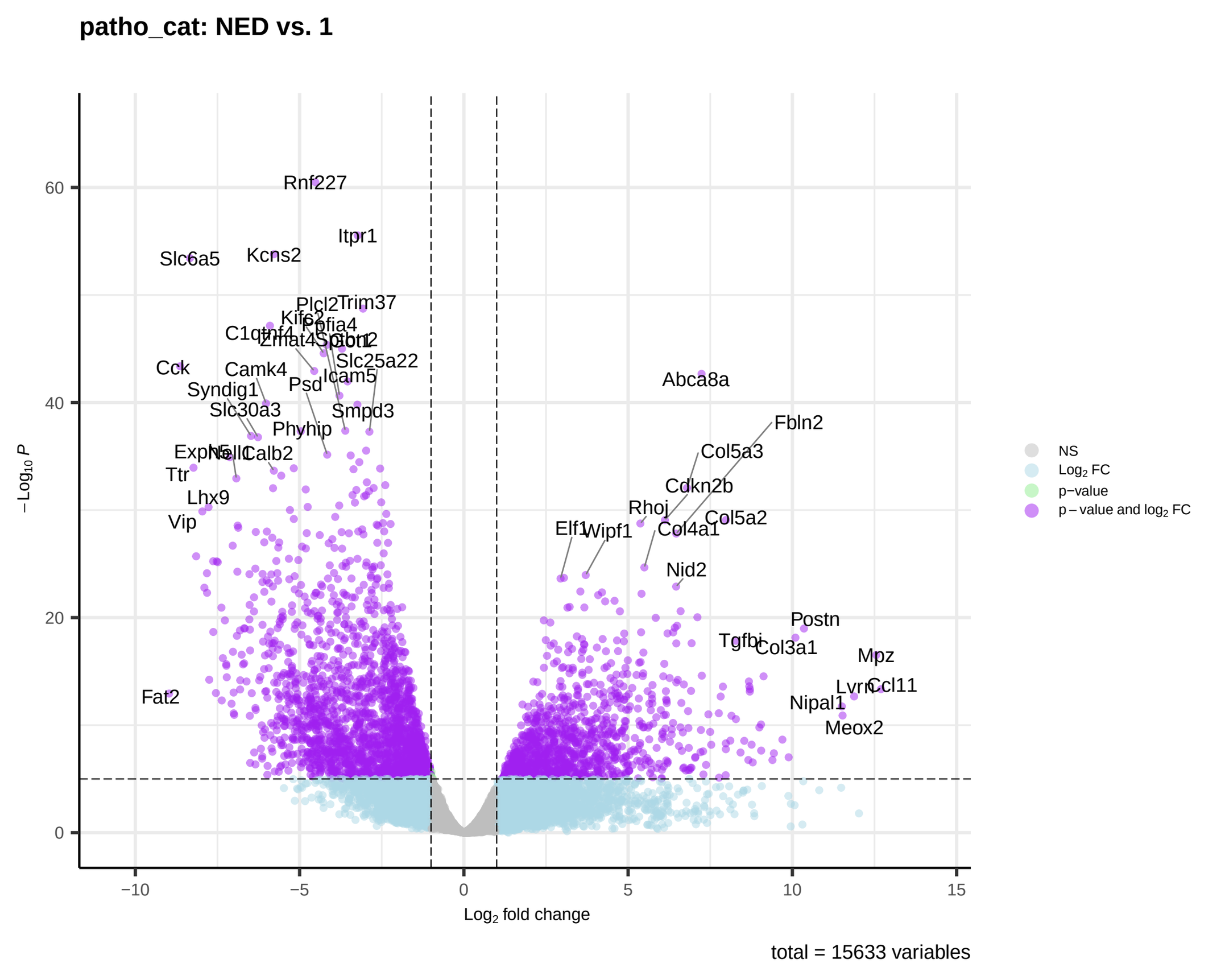

patho_cat: 1 vs. 3
Sbspon
Mamdc2
Crispld1
Hmgcs2
Abca8b
Ebf2
Prx
Rem1
Wnt6
Rasl12
Slc1a5
Osr2
Naalad2
Gm34408
Epyc
Xkr7
Marchf4
Camk4
Meox2
Lvrn
Cldn1
Dpep1
Upk1b
Mpz
Slc6a5
Cxcl13
60
40
20
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
NS
Log2 FC
p−value
p − value and log2 FC
total = 14435 variables

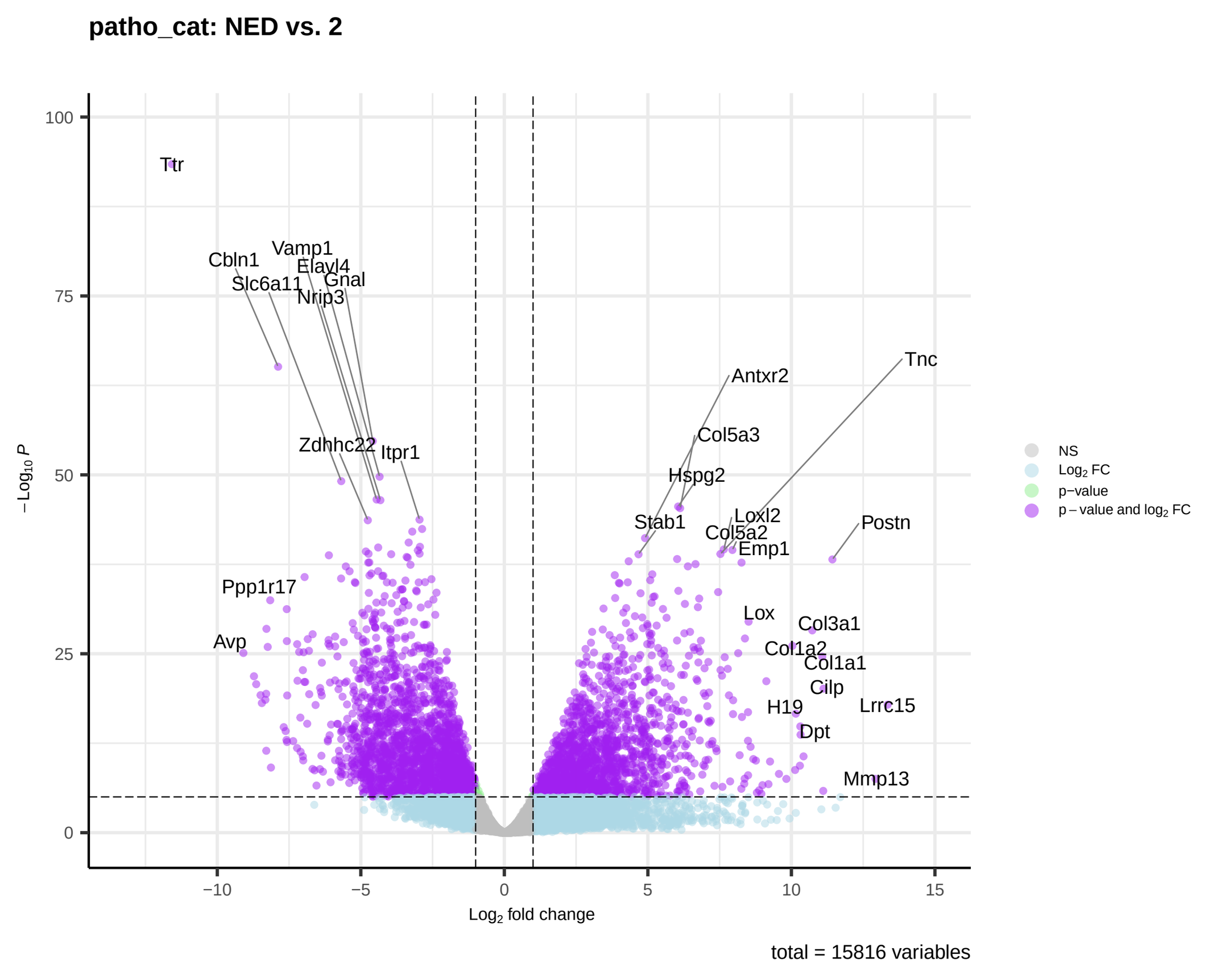

patho_cat: 1 vs. 4
40
30
20
10
0
−Log10 P
−10
−5
0
5
Log2 fold change
Abca8a
Fbln2
Sbspon
Itpr3
Hmgcs2
Mamdc2
Scn7a
Gulp1
Mpz
Spata18
C1s1
Abca9
Plce1
Ccl11
Kank4
Gpr174
Cldn1
Emilin3
Plch1
Ttr
Rin1
Otof
Slc30a3
Nrgn
Neurod6
NS
Log2 FC
p – value and log2 FC
total = 15391 variables

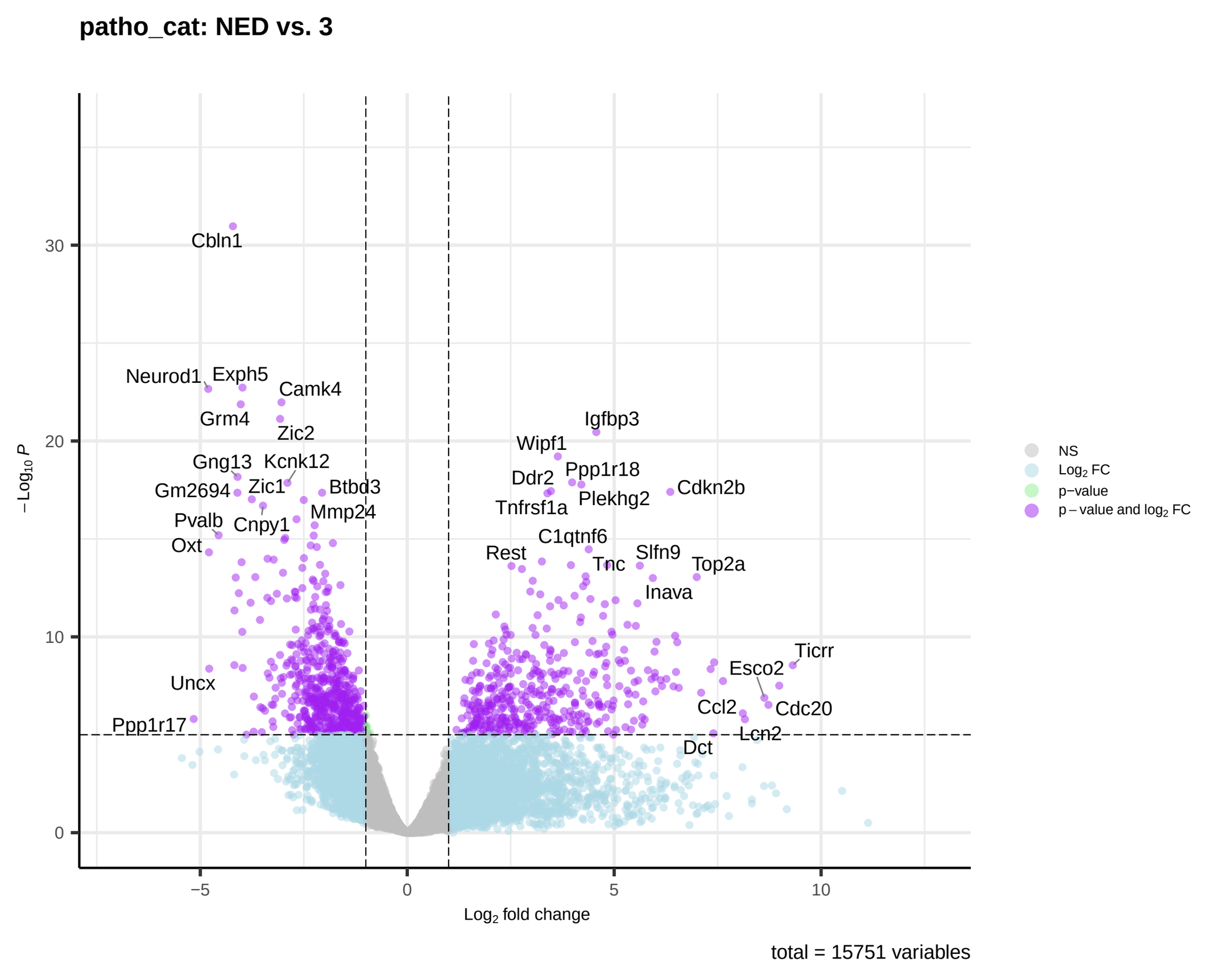

patho_cat: 2 vs. 3
60
40
20
0
−Log10 P
Svep1
Mfap5
Medag
Lox
Eln
Ccn4
Cpz
Smoc2
Wnt9a
Csrp2
Lrrc17
Epha3
Bicc1
Aebp1
Twist1
Fbln1
Col5a1
Antxr1
Clec11a
C1qtnf3
Igf1
Loxl1
Bnc2
Tnmd
Prr33
Dpt
Actg2
Lrrc15
Tnnt3
Mfap4
H19
Mmp13
Col1a2
Myh4
Col1a1
Ibsp
Myh1
Cilp
Otud7a
Nalf1
Pgbd5
Cntn4
Gpc5
−10
−5
0
5
Log2 fold change
NS
Log2 FC
p−value
p − value and log2 FC
total = 14557 variables

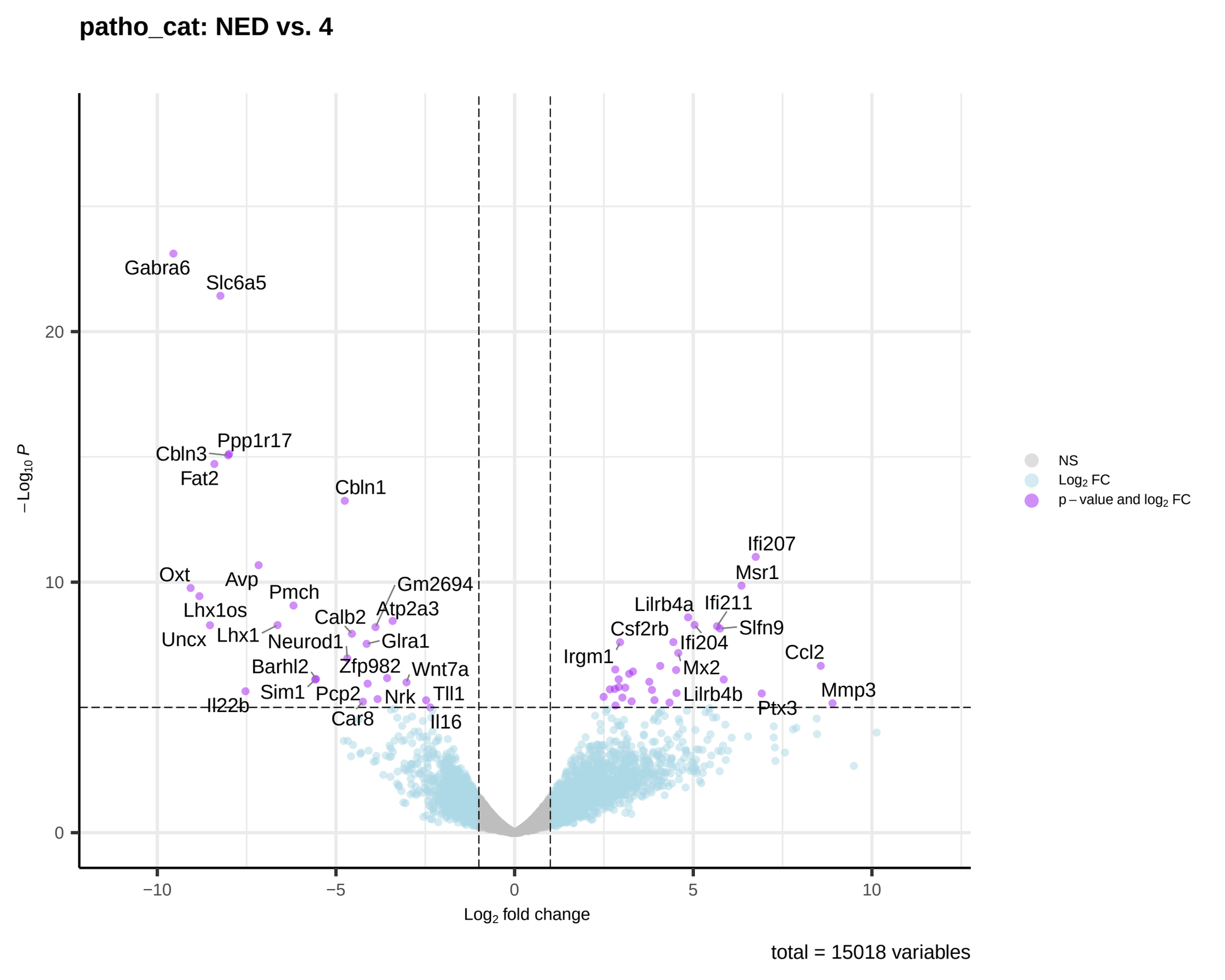

patho_cat: 2 vs. 4
25
20
15
10
5
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Svep1
Scn8a
Ttr
Bnc2
Scn3a
Six3
Cilp
Mfap5
Otud7a
Kcna4
BC034090
Col14a1
Mxra8
Unc79
Syt4
Dpt
C1s1
Nexmif
Ryr3
Six3os1
Flnc
Mfap4
Lsp1
Gas1
Adgrg6
Prr33
Gpr101
Lamb2
Abca8a
Loxl1
Cpz
Lrrc17
Gfra3
Lrrc15
Lum
Hoxd8
Sfrp2
Gm6093
Rpl39l
C1qtnf3
Aqp2
NS
Log2 FC
p – value and log2 FC
total = 15482 variables

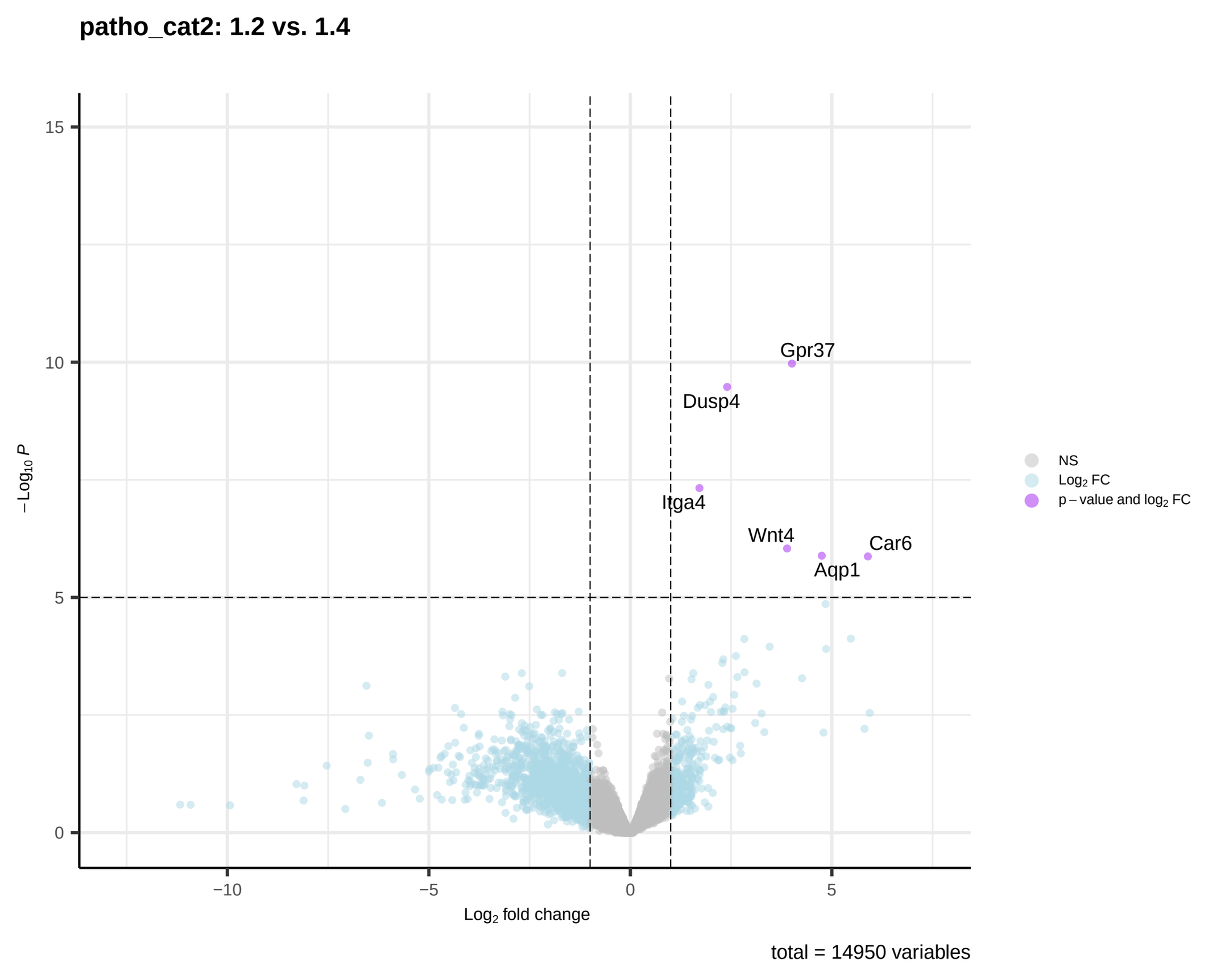

patho_cat: 3 vs. 4
Slfn4
NS
Log2 FC
p – value and log2 FC
9
6
3
0
−Log10 P
−10
−5
0
5
Log2 fold change
total = 15748 variables

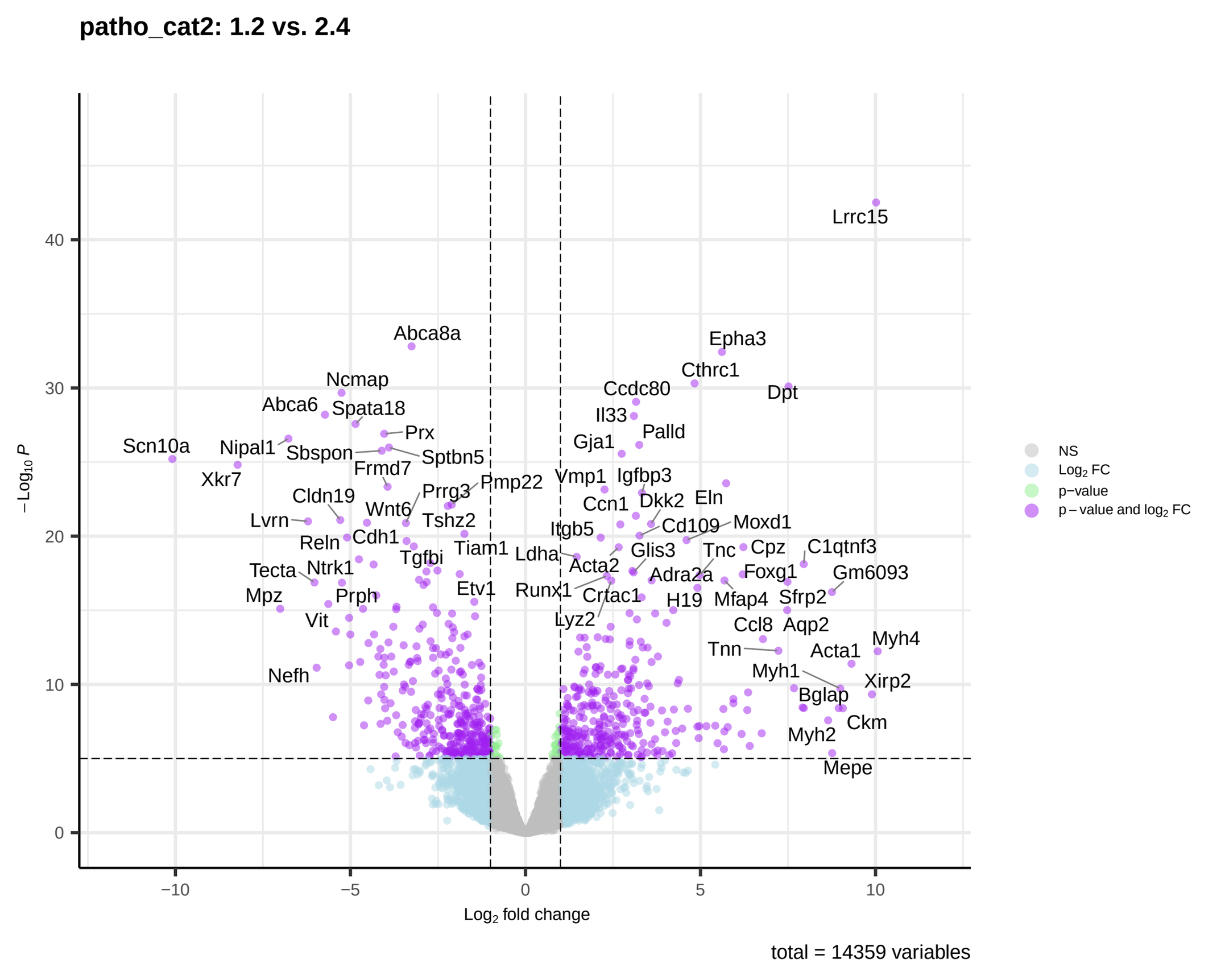

patho_cat: NED vs. 1
Rnf227
Itpr1
Slc6a5
Kcns2
Plcl2
Trim37
Kif5c
Pgfia4
C1qtnf4
Zfhat4
Sptbn2
Slc25a22
Cck
Camk4
Icam5
Abca8a
Syndig1
Psd
Slc30a3
Smpd3
Fbln2
Phyhip
Col5a3
Calb2
Ttr
Cdkn2b
Lhx9
Rhoj
Col5a2
Vip
Elf1
Wipf1
Col4a1
Nid2
Postn
Tgfbi
Col3a1
Mpz
Fat2
Lvrn
Ccl11
Nipal1
Meox2
60
40
20
0
−10
−5
0
5
10
15
$-\text{Log}_{10}P$
Log_2 fold change
NS
Log_2 FC
p−value
p – value and $\log_2$ FC
total = 15633 variables

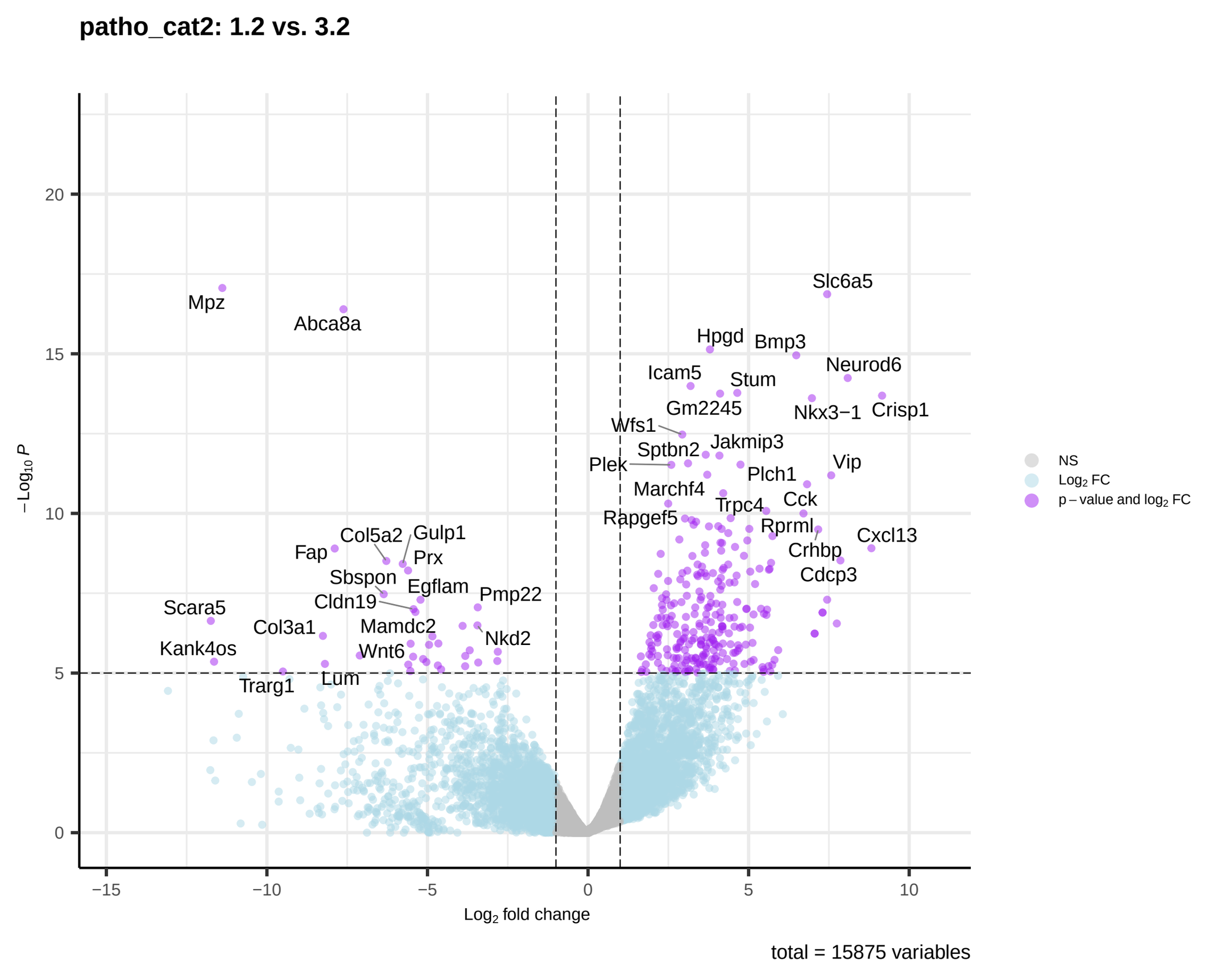

patho_cat: NED vs. 2
100
75
50
25
0
−Log10 P
Ttr
Cbln1
Vamp1
Elavl4
Slc6a11
Gnal
Nrip3
Zdhhc22
Itpr1
Ppp1r17
Avp
Antxr2
Tnc
Col5a3
Hspg2
Stab1
Loxl2
Col5a2
Emp1
Postn
Lox
Col3a1
Col1a2
Col1a1
Cilp
H19
Lrrc15
Dpt
Mmp13
−10
−5
0
5
10
15
Log2 fold change
NS
Log2 FC
p−value
p − value and log2 FC
total = 15816 variables

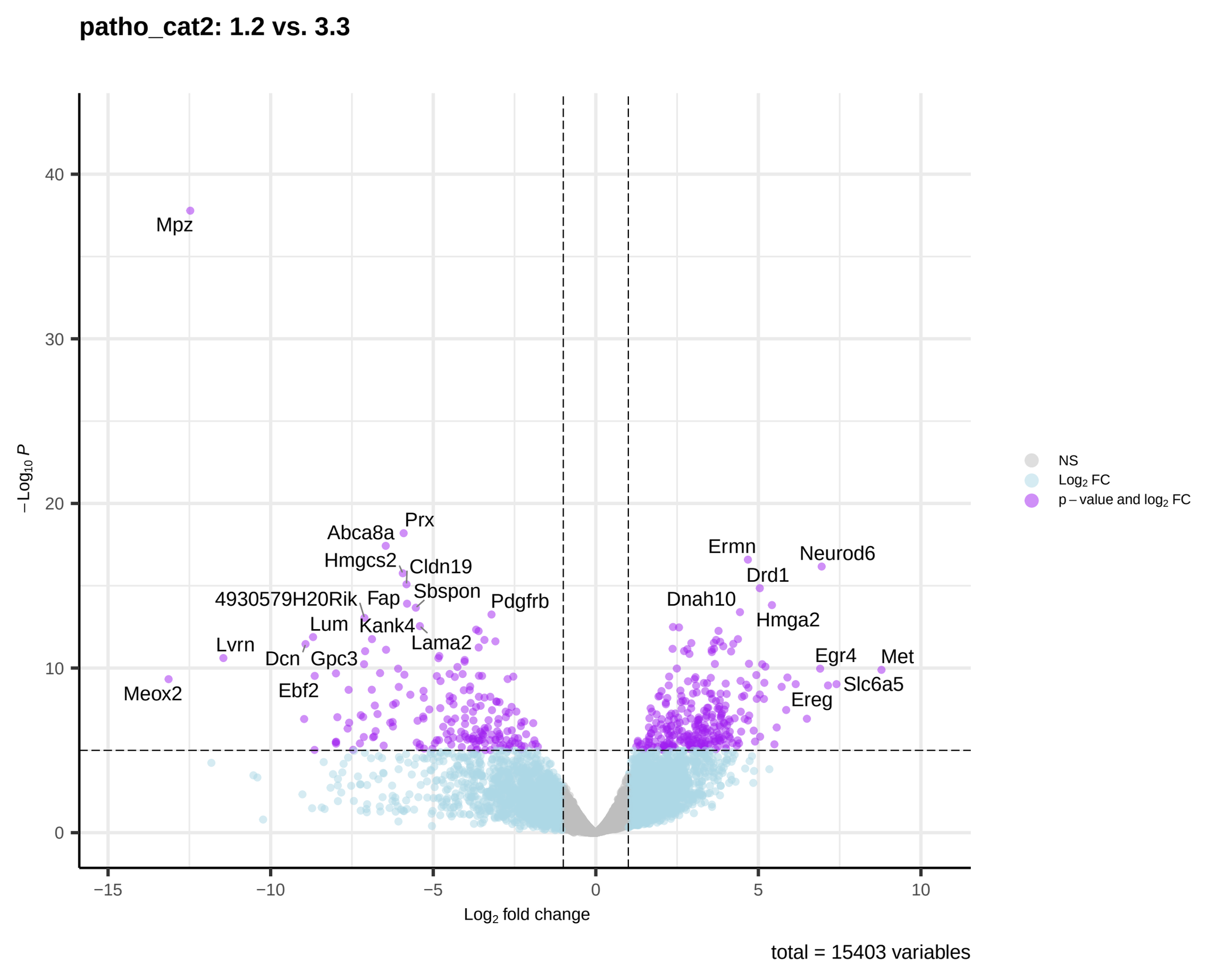

patho_cat: NED vs. 3
Cbln1
Neurod1
Exph5
Camk4
Grm4
Zic2
Gng13
Kcnk12
Gm2694
Zic1
Btbd3
Mmp24
Pvalb
Cnpy1
Oxt
Uncx
Ppp1r17
Igfbp3
Wipf1
Ppp1r18
Ddr2
Plekhg2
Cdkn2b
Tnfrsf1a
C1qtnf6
Rest
Tnc
Slfn9
Top2a
Inava
Ticrr
Esco2
Ccl2
Cdc20
Lcn2
Dct
30
20
10
0
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p−value
p – value and $\log_2$ FC
total = 15751 variables

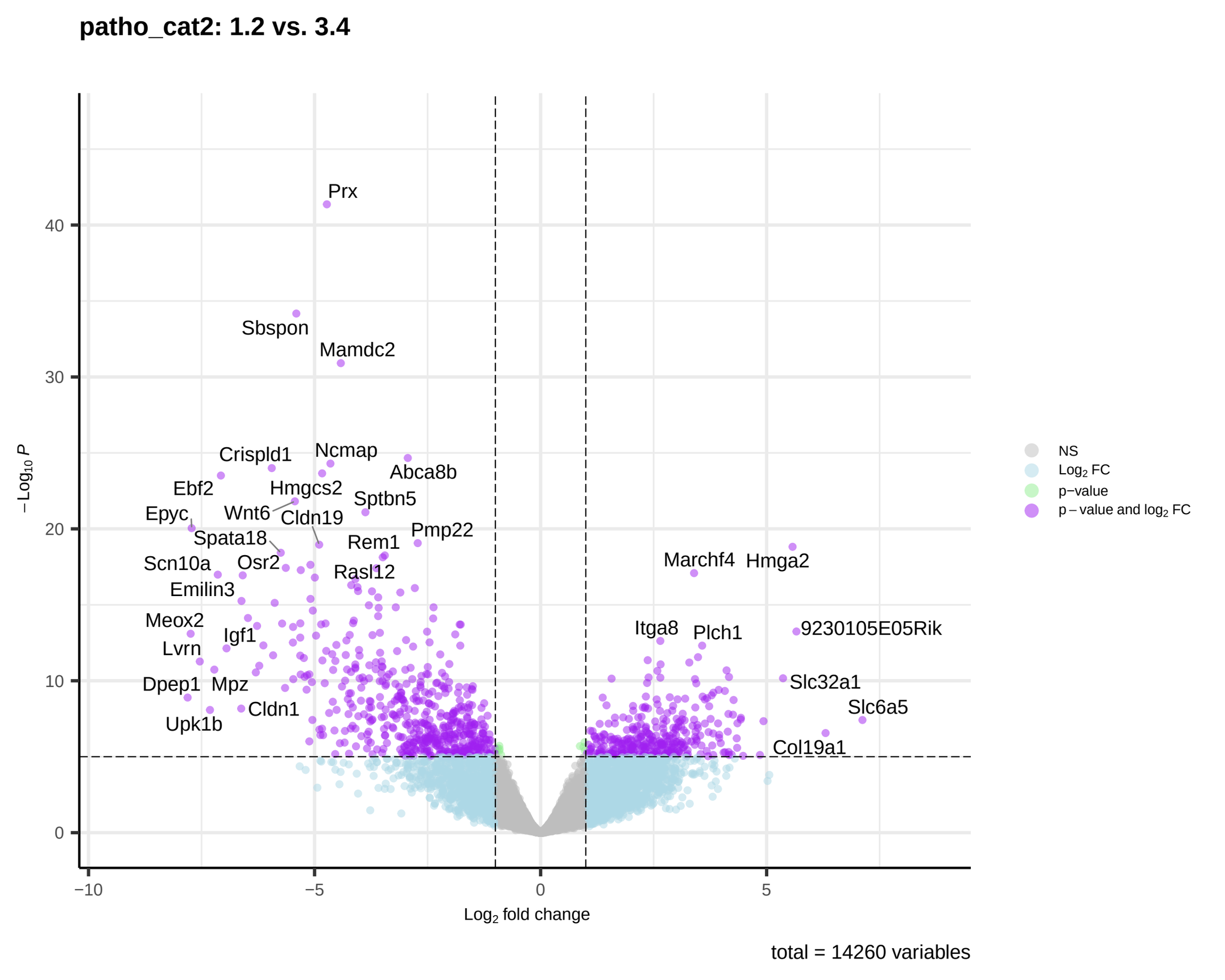

patho_cat: NED vs. 4
Gabra6
Slc6a5
Cbln3
Ppp1r17
Fat2
Cbln1
Oxt
Avp
Pmch
Gm2694
Lhx1os
Calb2
Atp2a3
Uncx
Lhx1
Neurod1
Glra1
Barhl2
Zfp982
Wnt7a
Sim1
Pcp2
Nrk
Tll1
Il22b
Car8
Il16
Ifi207
Msr1
Lilrb4a
Ifi211
Csf2rb
Slfn9
Ifi204
Irgm1
Ccl2
Mx2
Lilrb4b
Mmp3
Ptx3
20
10
0
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15018 variables

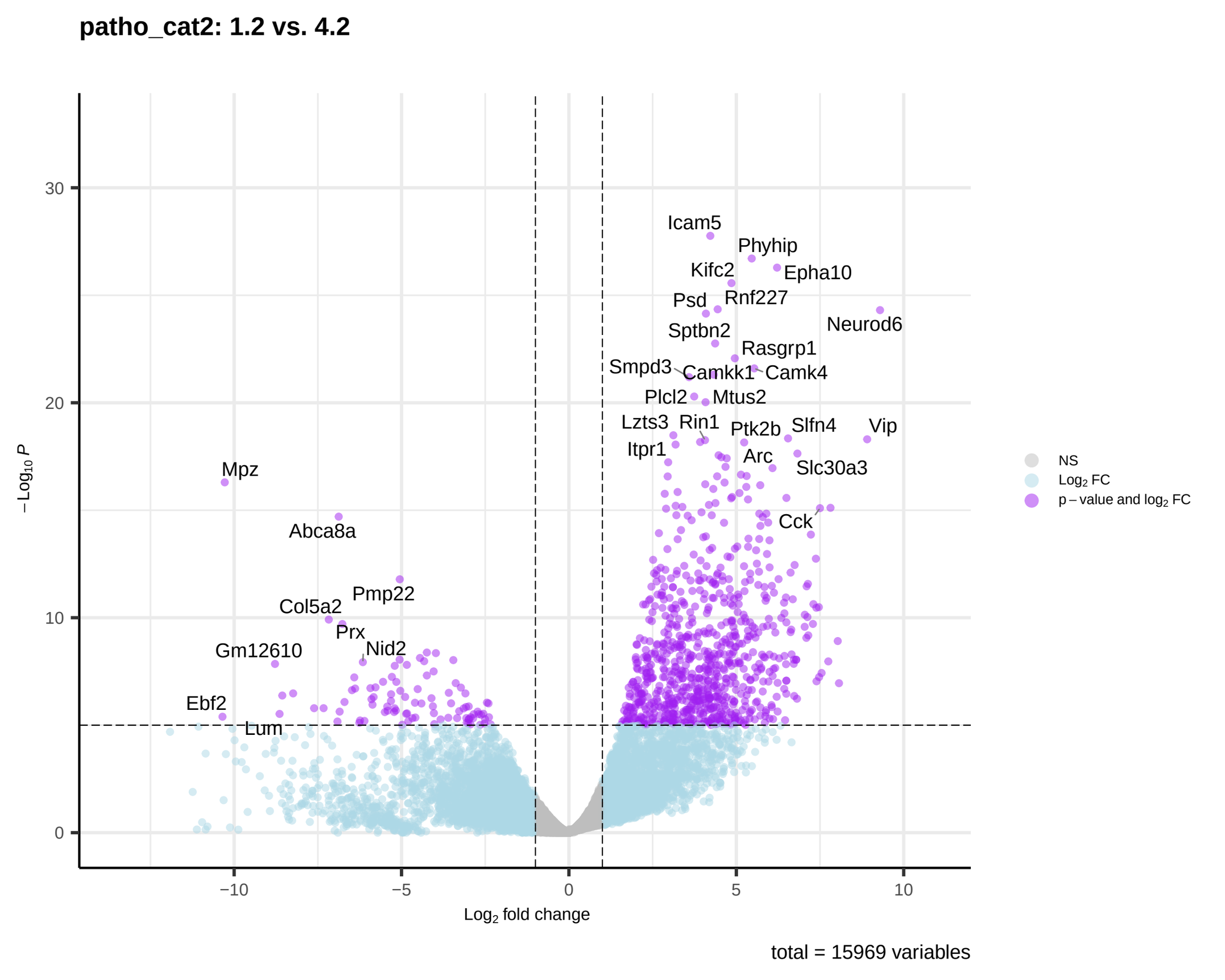

patho_cat2: 1.2 vs. 1.4
15
10
5
0
−Log10 P
Gpr37
Dusp4
Itga4
Wnt4
Car6
Aqp1
−10
−5
0
5
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 14950 variables

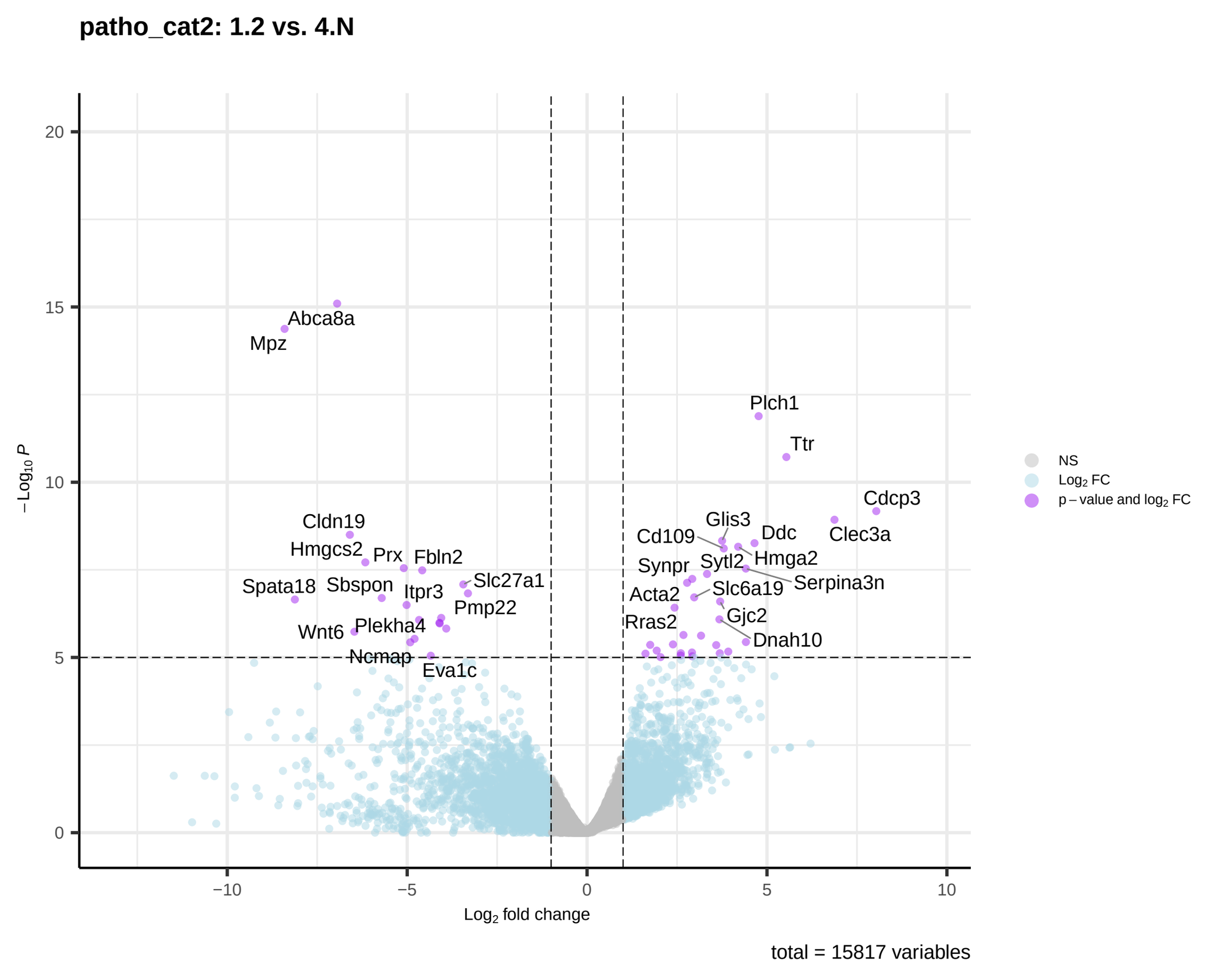

patho_cat2: 1.2 vs. 2.4
Lrrc15
Abca8a
Epha3
Cthrc1
Ncmap
Ccdc80
Dpt
Abca6
Spata18
Il33
Palld
Prx
Gja1
Scn10a
Nipal1
Sbspon
Sptbn5
Frmd7
Xkr7
Vmp1
Igfbp3
Pmp22
Prrg3
Ccn1
Dkk2
Eln
Cldn19
Wnt6
Tshz2
Cd109
Moxd1
Lvrn
Itgb5
Cdh1
Reln
Tiam1
Ldha
Glis3
Tnc
Cpz
C1qtnf3
Tgfbi
Acta2
Adra2a
Foxg1
Gm6093
Tecta
Ntrk1
Etv1
Runx1
Crtac1
H19
Mfap4
Sfrp2
Mpz
Prph
Lyz2
Ccl8
Aqp2
Vit
Myh4
Tnn
Acta1
Nefh
Myh1
Xirp2
Bglap
Ckm
Myh2
Mepe
40
30
20
10
0
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p−value
p – value and $\log_2$ FC
total = 14359 variables

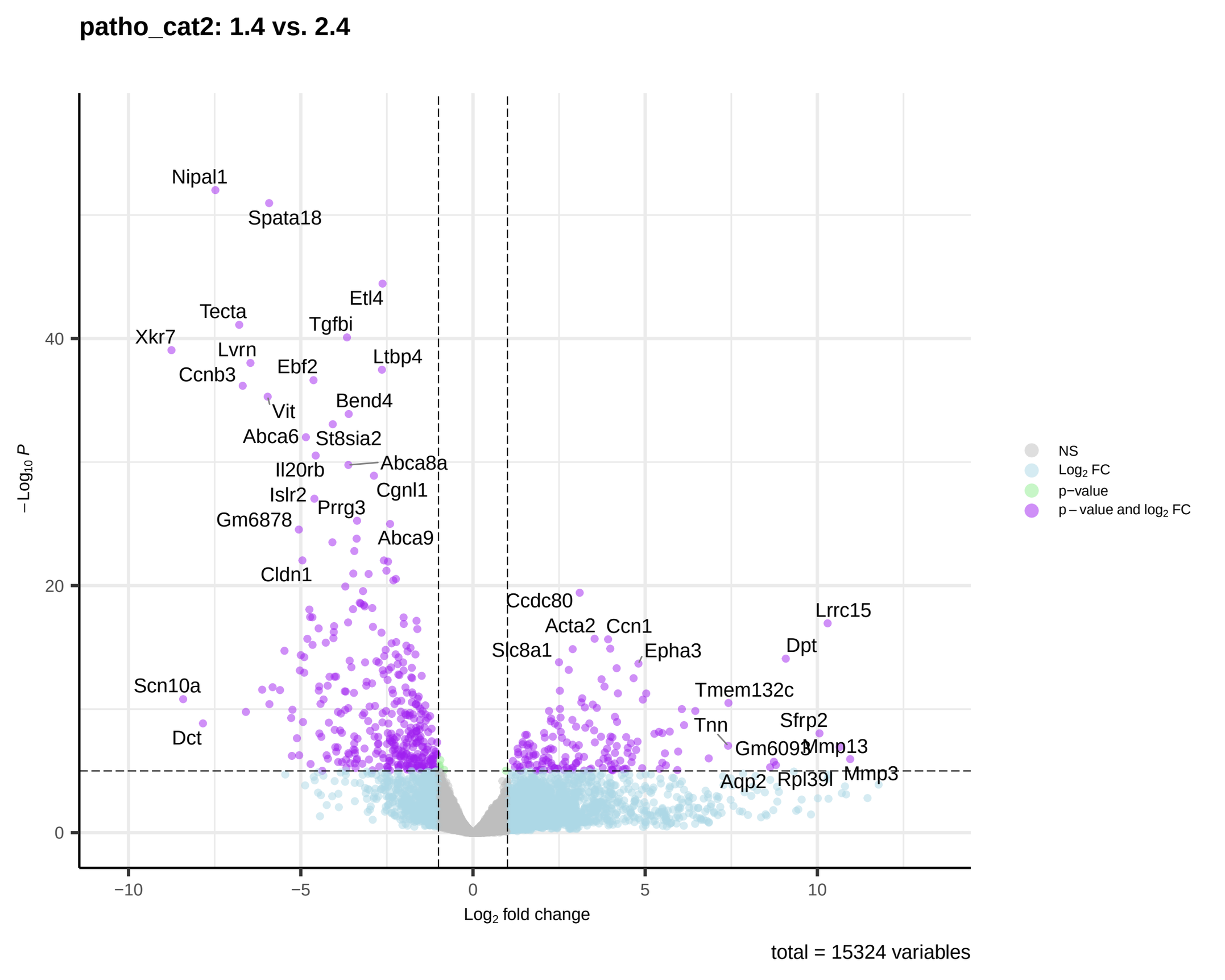

patho_cat2: 1.2 vs. 3.2
Mpz
Abca8a
Slc6a5
Hpgd
Bmp3
Neurod6
Icam5
Stum
Gm2245
Nkx3−1
Crisp1
Wfs1
Jakmip3
Sptbn2
Plek
Vip
Plch1
Marchf4
Trpc4
Cck
Rapgef5
Rprml
Cxcl13
Crhbp
Cdcp3
Col5a2
Gulp1
Fap
Prx
Sbspon
Egflam
Cldn19
Pmp22
Scara5
Col3a1
Mamdc2
Nkd2
Kank4os
Wnt6
Trarg1
Lum
20
15
10
5
0
−15
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and $\log_2$ FC
total = 15875 variables

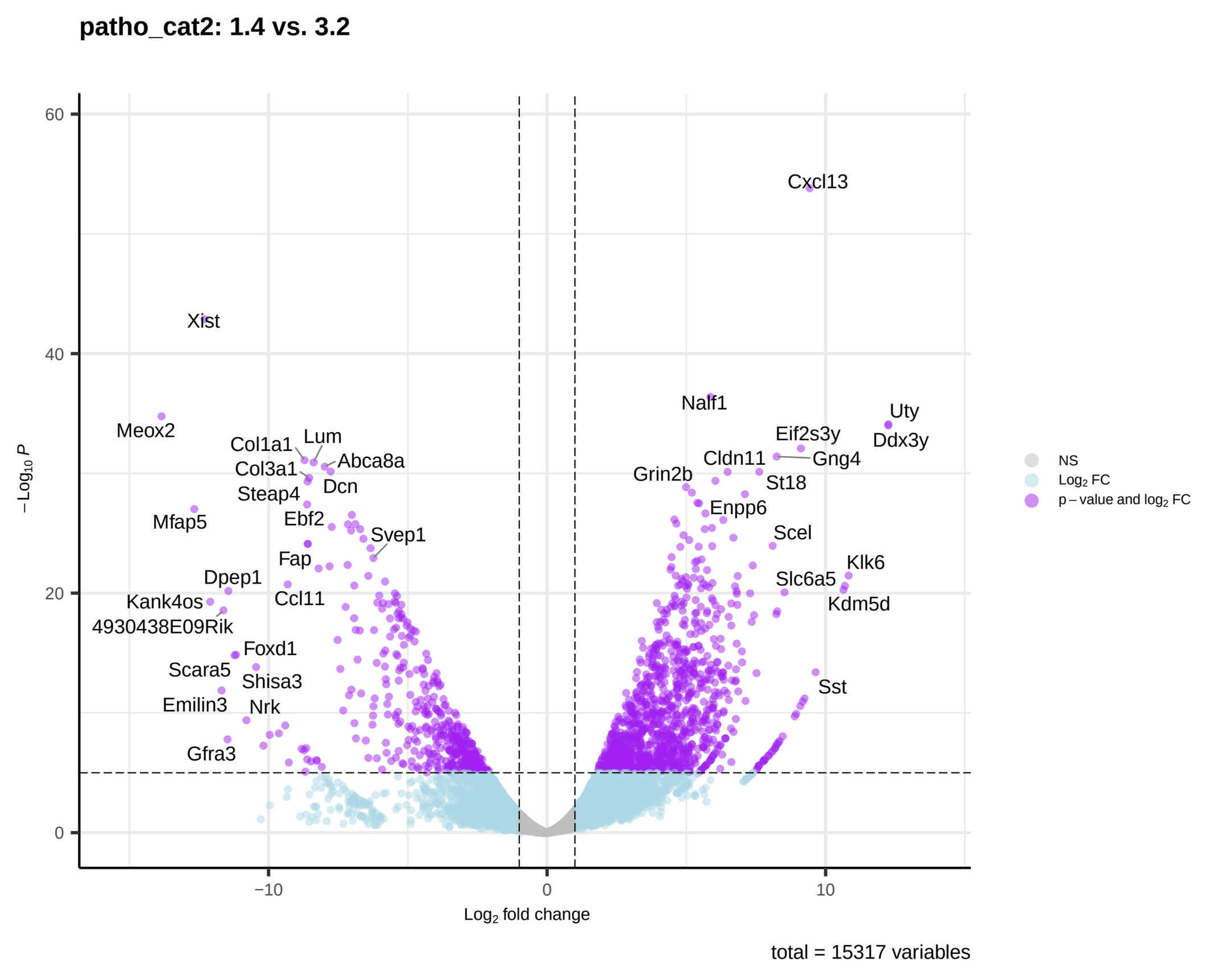

patho_cat2: 1.2 vs. 3.3
40
30
20
10
0
−Log10 P
Mpz
Prx
Abca8a
Hmgcs2
Cldn19
Sbspon
4930579H20Rik
Fap
Pdgfrb
Lum
Kank4
Lvrn
Lama2
Dcn
Gpc3
Ebf2
Meox2
Ermn
Neurod6
Drd1
Dnah10
Hmga2
Egr4
Met
Slc6a5
Ereg
−15
−10
−5
0
5
10
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 15403 variables

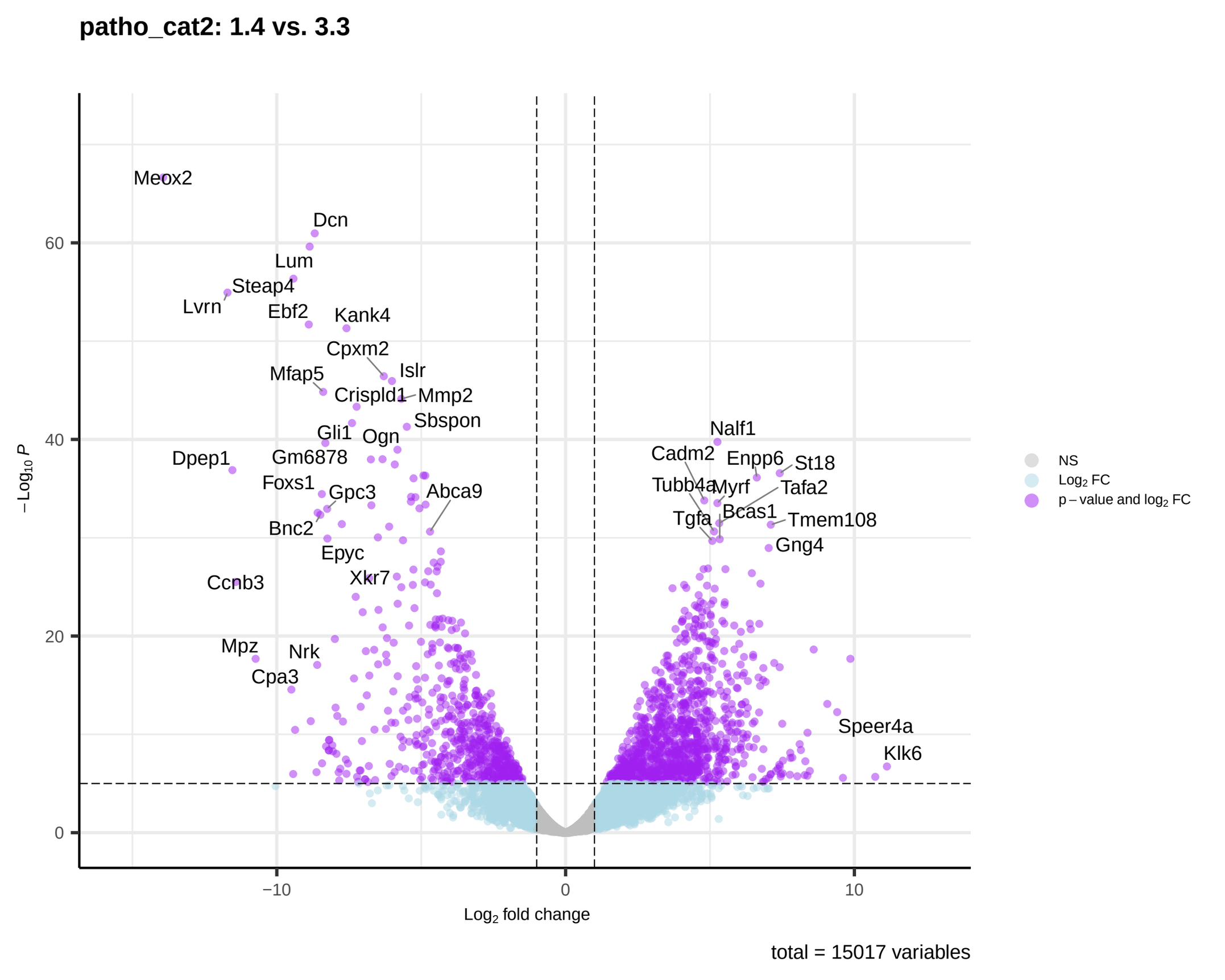

patho_cat2: 1.2 vs. 3.4
Prx
Sbspon
Mamdc2
Crispld1
Ncmap
Abca8b
Ebf2
Hmgcs2
Sptbn5
Epyc
Wnt6
Cldn19
Pmp22
Spata18
Rem1
Scn10a
Osr2
Rasl12
Emilin3
Meox2
Igf1
Lvrn
Dpep1
Mpz
Cldn1
Upk1b
Marchf4
Hmga2
Itga8
Plch1
9230105E05Rik
Slc32a1
Slc6a5
Col19a1
40
30
20
10
0
−10
−5
0
5
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p−value
p – value and log_2 FC
total = 14260 variables

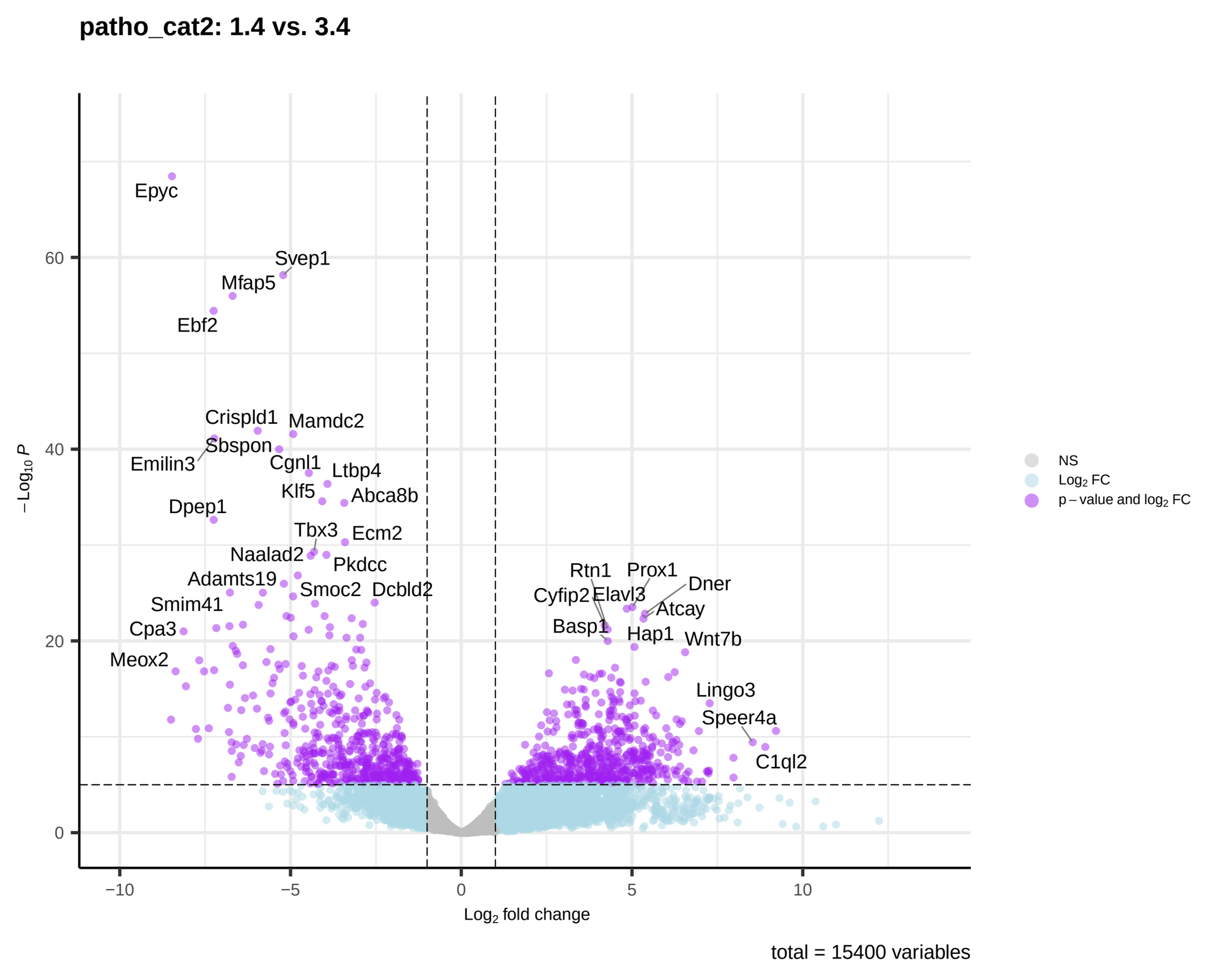

patho_cat2: 1.2 vs. 4.2
30
20
10
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Icam5
Phyhip
Kifc2
Epha10
Psd
Rnf227
Neurod6
Sptbn2
Rasgrp1
Smpd3
Camkk1
Camk4
Plcl2
Mtus2
Lzts3
Rin1
Ptk2b
Slfn4
Vip
Itpr1
Arc
Slc30a3
Cck
Mpz
Abca8a
Pmp22
Col5a2
Prx
Nid2
Gm12610
Ebf2
Lum
NS
Log2 FC
p – value and log2 FC
total = 15969 variables

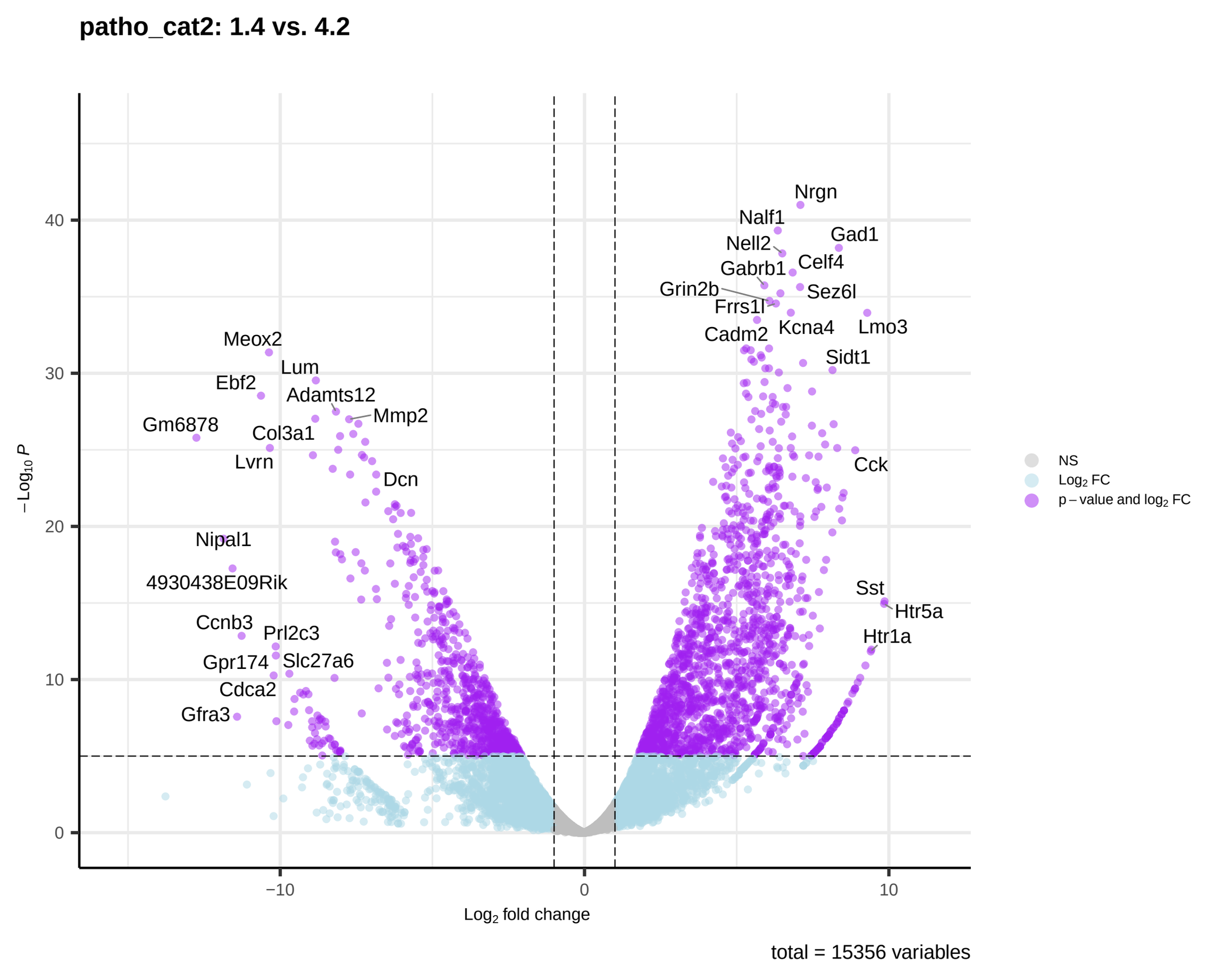

patho_cat2: 1.2 vs. 4.N
20
15
10
5
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Abca8a
Mpz
Plch1
Ttr
Cdcp3
Clec3a
Glis3
Ddc
Cd109
Hmga2
Synpr
Sytl2
Serpina3n
Slc6a19
Acta2
Gjc2
Rras2
Dnah10
Cldn19
Hmgcs2
Prx
Fbln2
Spata18
Sbspon
Itpr3
Slc27a1
Pmp22
Wnt6
Plekha4
Ncmap
Eva1c
NS
Log2 FC
p – value and log2 FC
total = 15817 variables

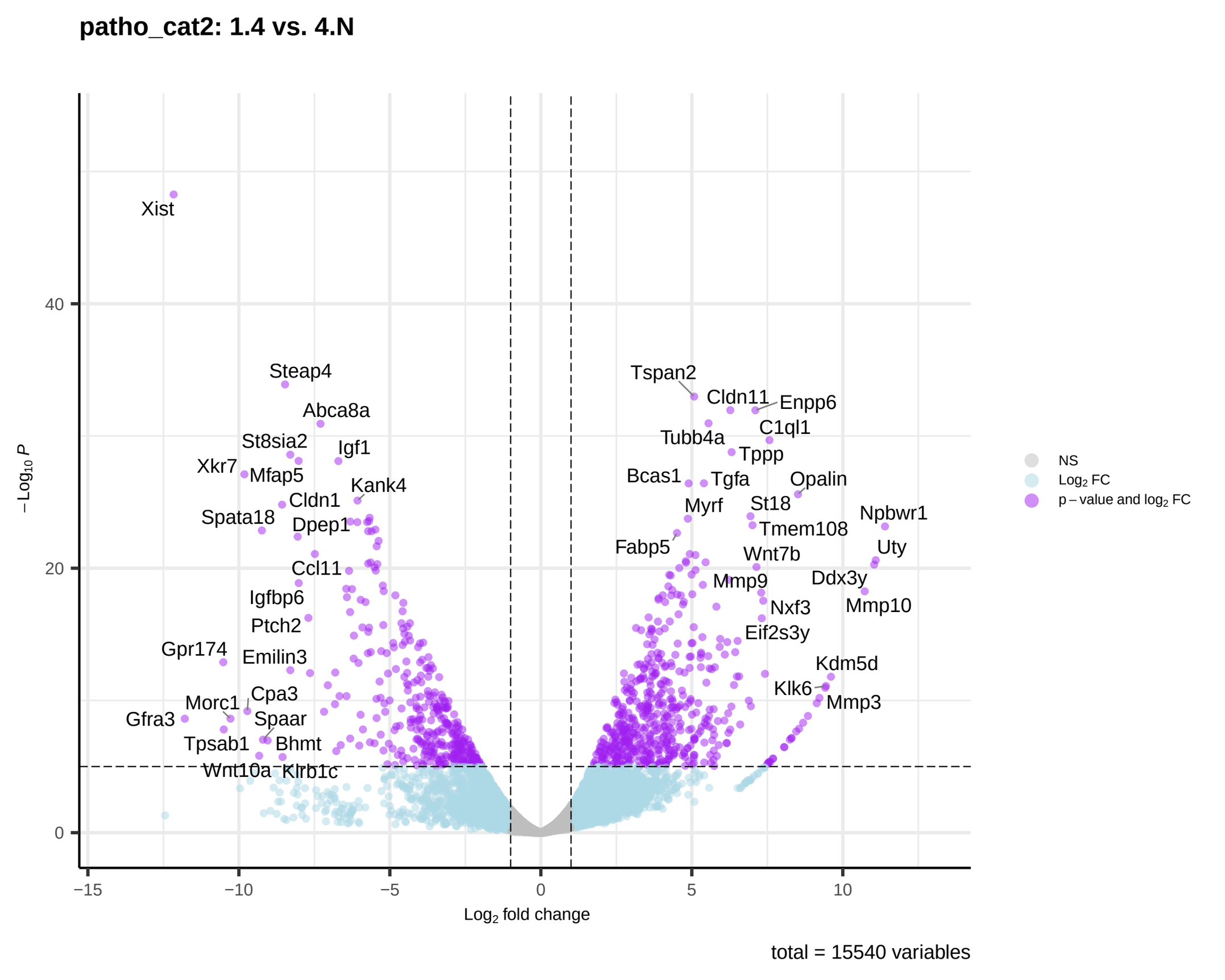

patho_cat2: 1.4 vs. 2.4
Nipal1
Spata18
Etl4
Tecta
Tgfbi
Xkr7
Lvrn
Ltbp4
Ebf2
Ccnb3
Bend4
Vit
Abca6
St8sia2
Il20rb
Abca8a
Cgnl1
Islr2
Prrg3
Gm6878
Abca9
Cldn1
Ccdc80
Lrrc15
Acta2
Ccn1
Slc8a1
Epha3
Dpt
Scn10a
Tmem132c
Tnn
Sfrp2
Dct
Gm6093
Mmp13
Aqp2
Rpl39l
Mmp3
40
20
0
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p−value
p – value and $\log_2$ FC
total = 15324 variables

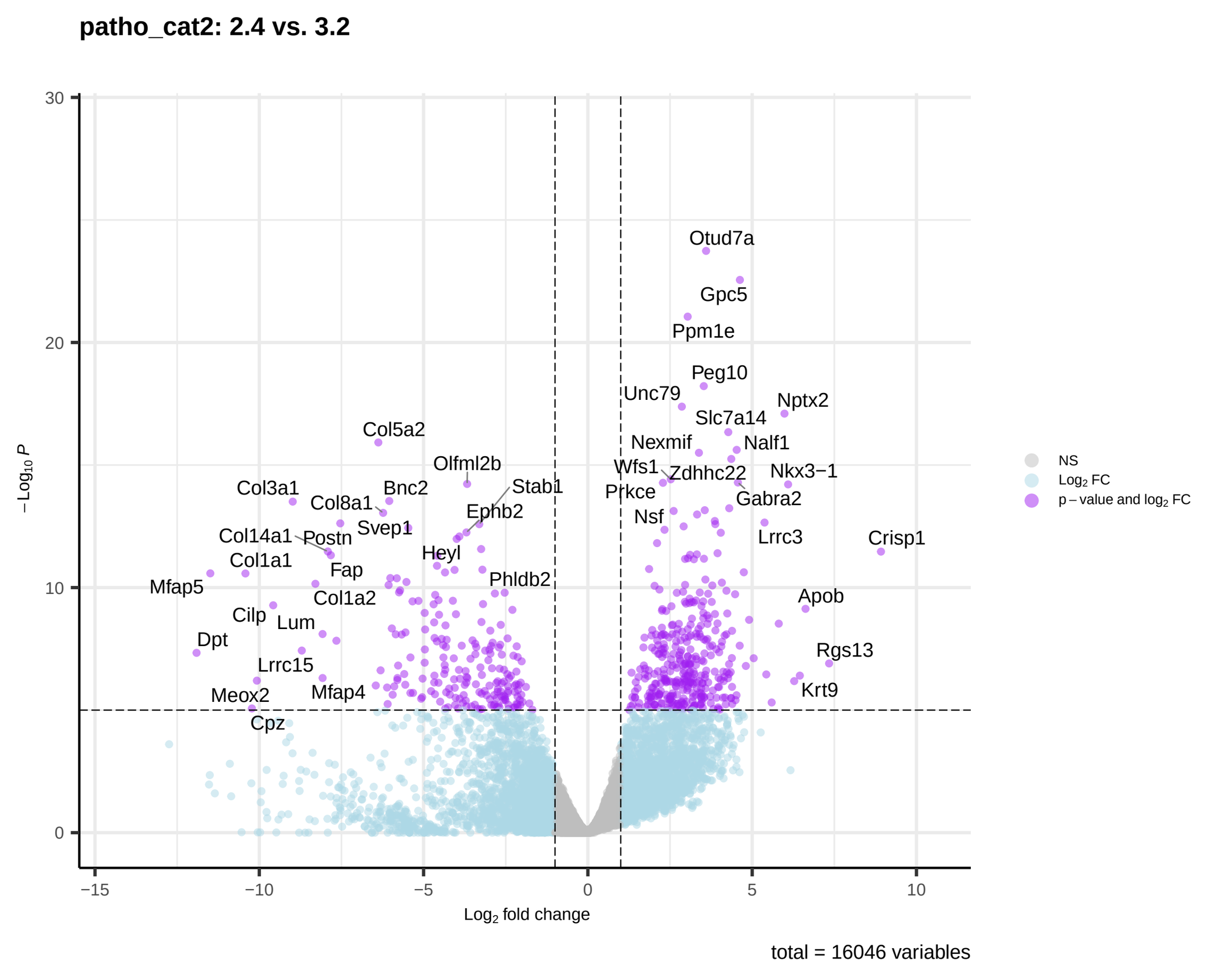

patho_cat2: 1.4 vs. 3.2
60
40
20
0
−Log10 P
−10
0
10
Log2 fold change
Cxcl13
Xist
Meox2
Col1a1
Lum
Abca8a
Col3a1
Dcn
Steap4
Mfap5
Ebf2
Svep1
Fap
Dpep1
Ccl11
Kank4os
4930438E09Rik
Foxd1
Scara5
Shisa3
Emilin3
Nrk
Gfra3
Nalf1
Uty
Eif2s3y
Ddx3y
Cldn11
Gng4
Grin2b
St18
Enpp6
Scel
Klk6
Slc6a5
Kdm5d
Sst
NS
Log2 FC
p – value and log2 FC
total = 15317 variables

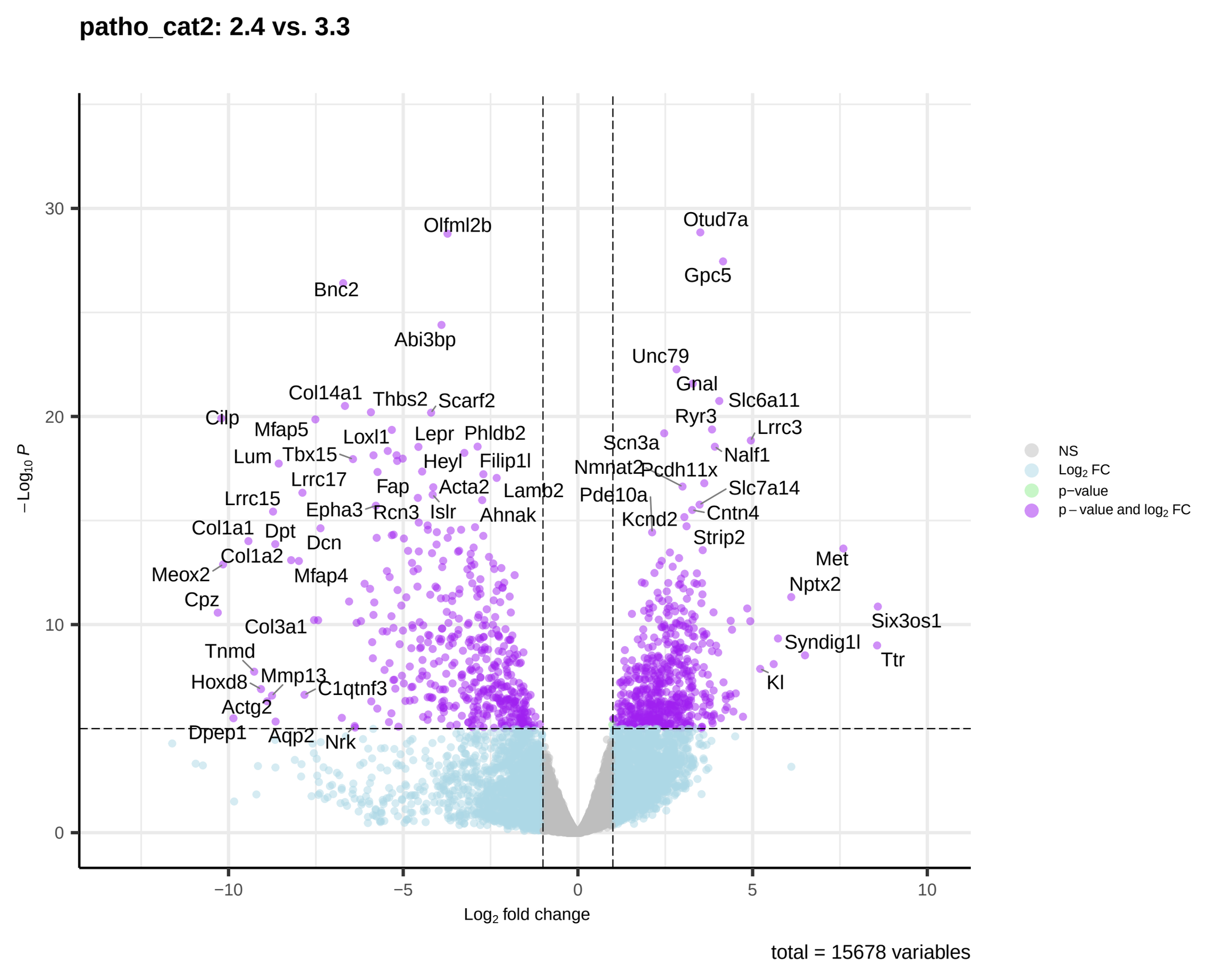

patho_cat2: 1.4 vs. 3.3
Meox2
Dcn
Lum
Steap4
Lvrn
Ebf2
Kank4
Cpxm2
Mfap5
Islr
Crispld1
Mmp2
Sbspon
Gli1
Ogn
Dpep1
Gm6878
Foxs1
Gpc3
Abca9
Bnc2
Epyc
Xkr7
Ccnb3
Mpz
Nrk
Cpa3
Nalf1
Cadm2
Enpp6
St18
Tubb4a
Myrf
Tafa2
Bcas1
Tgfa
Tmem108
Gng4
Speer4a
Klk6
60
40
20
0
−10
0
10
$-\text{Log}_{10} P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15017 variables

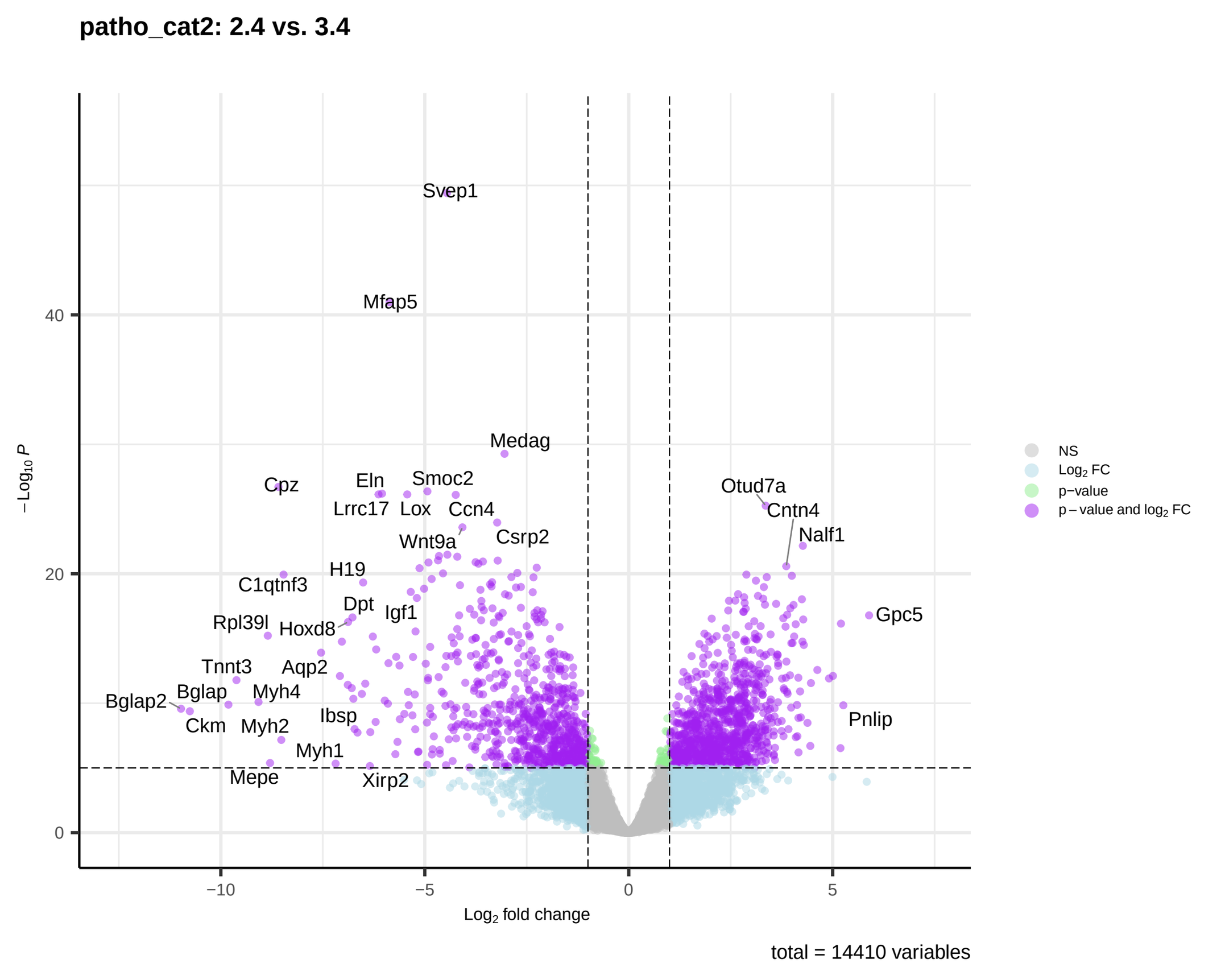

patho_cat2: 1.4 vs. 3.4
Epyc
Svep1
Mfap5
Ebf2
Crispld1
Mamdc2
Sbspon
Emilin3
Cgnl1
Ltbp4
Klf5
Abca8b
Dpep1
Tbx3
Ecm2
Naalad2
Pkdcc
Adamts19
Smoc2
Dcbld2
Smim41
Cpa3
Meox2
Rtn1
Prox1
Dner
Cyfip2
Elavl3
Atcay
Basp1
Hap1
Wnt7b
Lingo3
Speer4a
C1ql2
60
40
20
0
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and $\log_2$ FC
total = 15400 variables

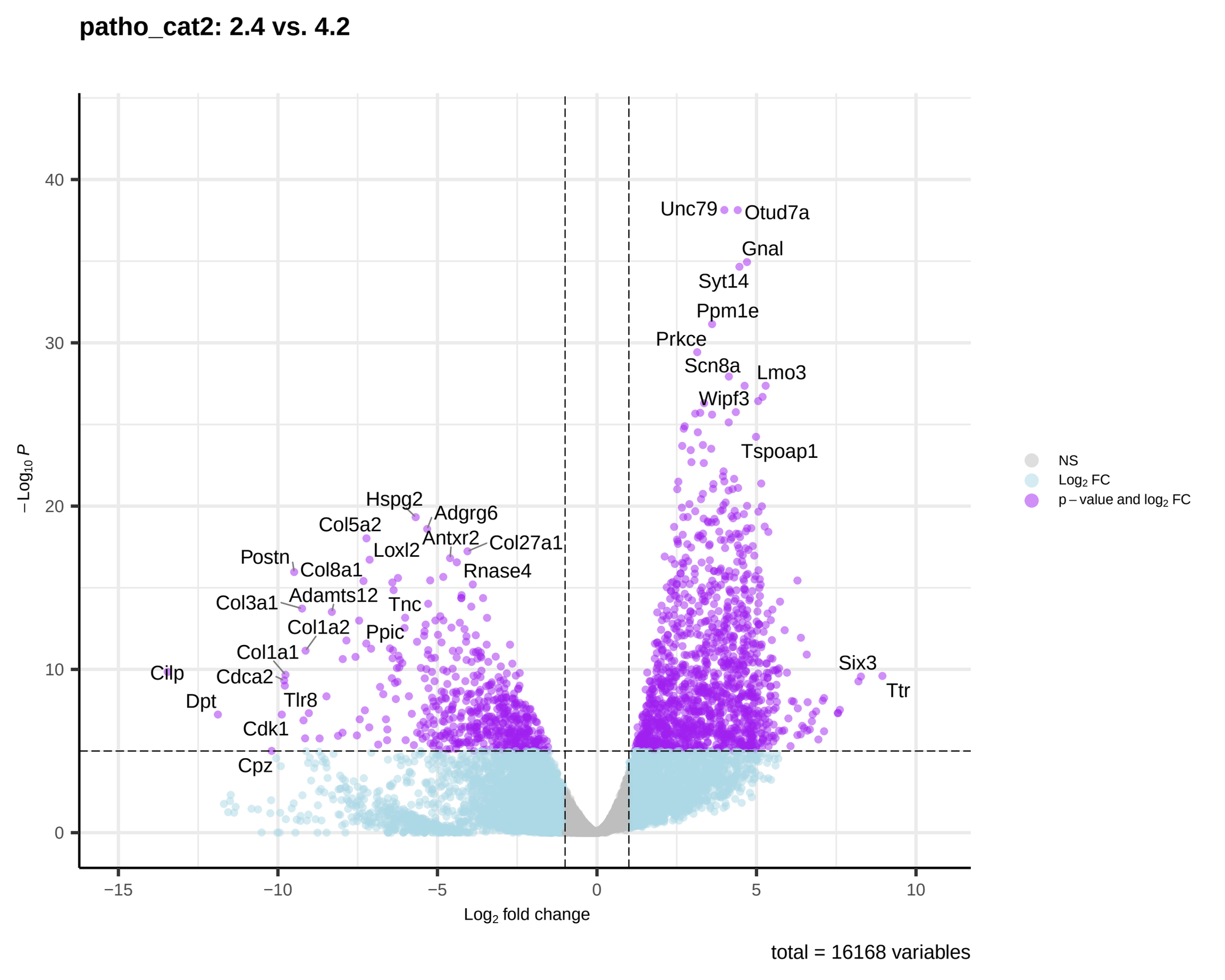

patho_cat2: 1.4 vs. 4.2
Nrgn
Nalf1
Gad1
Nell2
Celf4
Gabrb1
Grin2b
Sez6l
Frrs1l
Lmo3
Kcna4
Cadm2
Sidt1
Meox2
Lum
Ebf2
Adamts12
Mmp2
Gm6878
Col3a1
Lvrn
Cck
Dcn
Nipal1
4930438E09Rik
Sst
Htr5a
Htr1a
Ccnb3
Prl2c3
Gpr174
Slc27a6
Cdca2
Gfra3
40
30
20
10
0
−10
0
10
$-\mathrm{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15356 variables

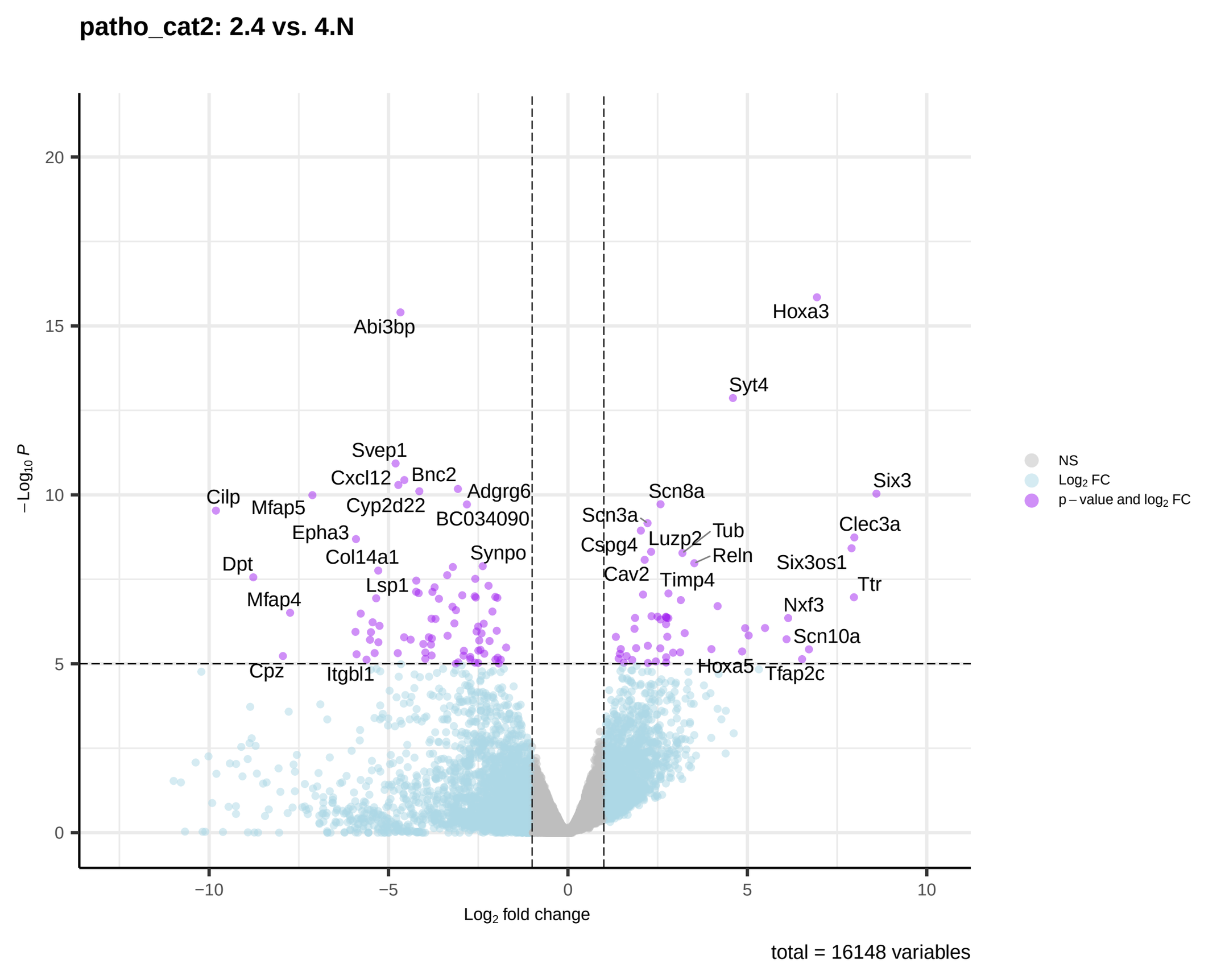

patho_cat2: 1.4 vs. 4.N
Xist
Steap4
Abca8a
St8sia2
Igf1
Xkr7
Mfap5
Kank4
Cldn1
Spata18
Dpep1
Ccl11
Igfbp6
Ptch2
Gpr174
Emilin3
Cpa3
Morc1
Gfra3
Spaar
Tpsab1
Bhmt
Wnt10a
Klrb1c
Tspan2
Cldn11
Enpp6
C1ql1
Tubb4a
Tppp
Bcas1
Tgfa
Opalin
Myrf
St18
Npbwr1
Tmem108
Fabp5
Wnt7b
Uty
Mmp9
Ddx3y
Nxf3
Mmp10
Eif2s3y
Kdm5d
Klk6
Mmp3
40
20
0
−15
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15540 variables

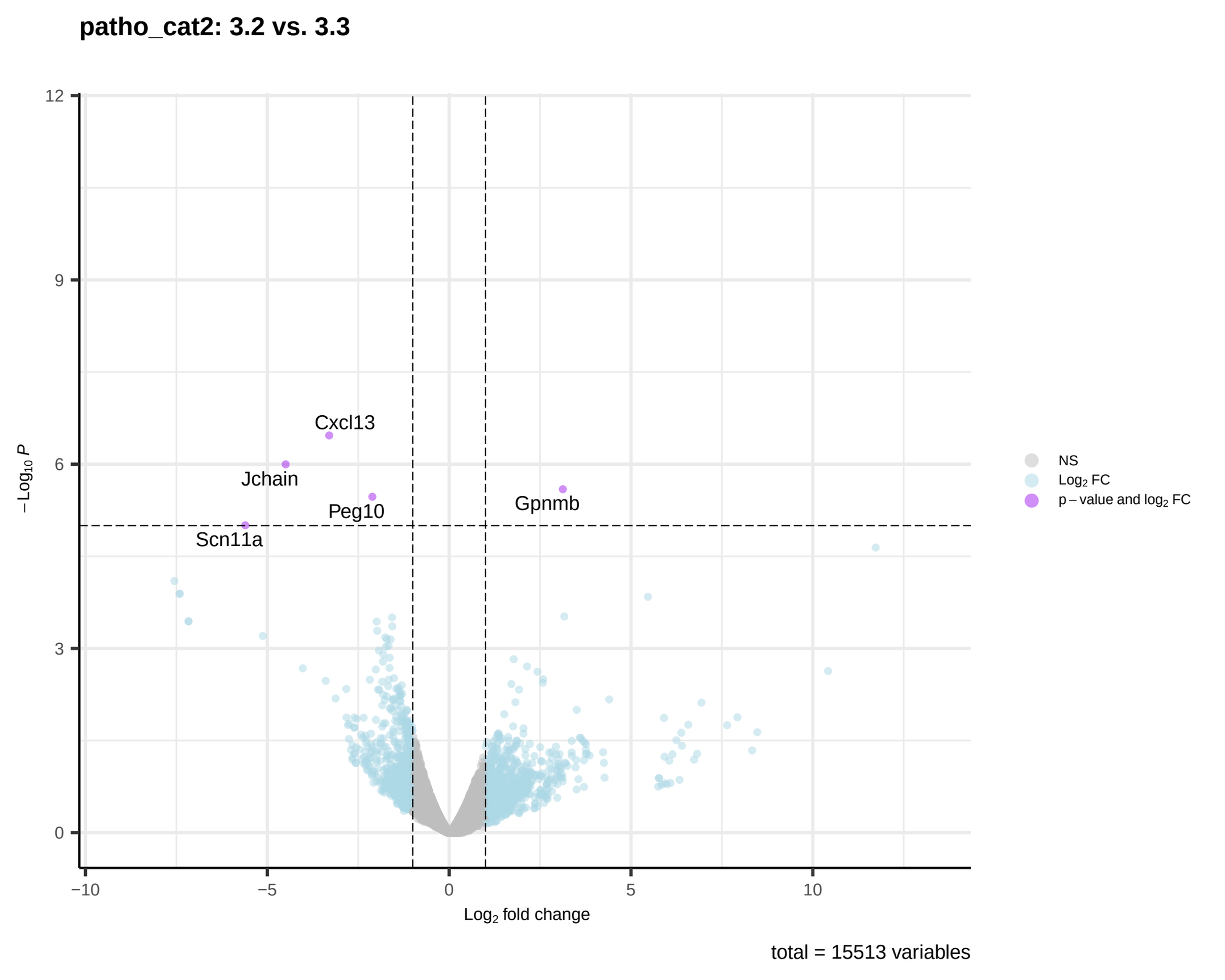

patho_cat2: 2.4 vs. 3.2
30
20
10
0
−Log10 P
−15
−10
−5
0
5
10
Log2 fold change
Otud7a
Gpc5
Ppm1e
Peg10
Unc79
Nptx2
Slc7a14
Nexmif
Nalf1
Wfs1
Zdhhc22
Nkx3−1
Prkce
Gabra2
Nsf
Lrrc3
Crisp1
Apob
Rgs13
Krt9
Col5a2
Olfml2b
Stab1
Col3a1
Bnc2
Col8a1
Ephb2
Svep1
Col14a1
Postn
Heyl
Col1a1
Fap
Phldb2
Mfap5
Col1a2
Cilp
Lum
Dpt
Lrrc15
Meox2
Mfap4
Cpz
NS
Log2 FC
p – value and log2 FC
total = 16046 variables

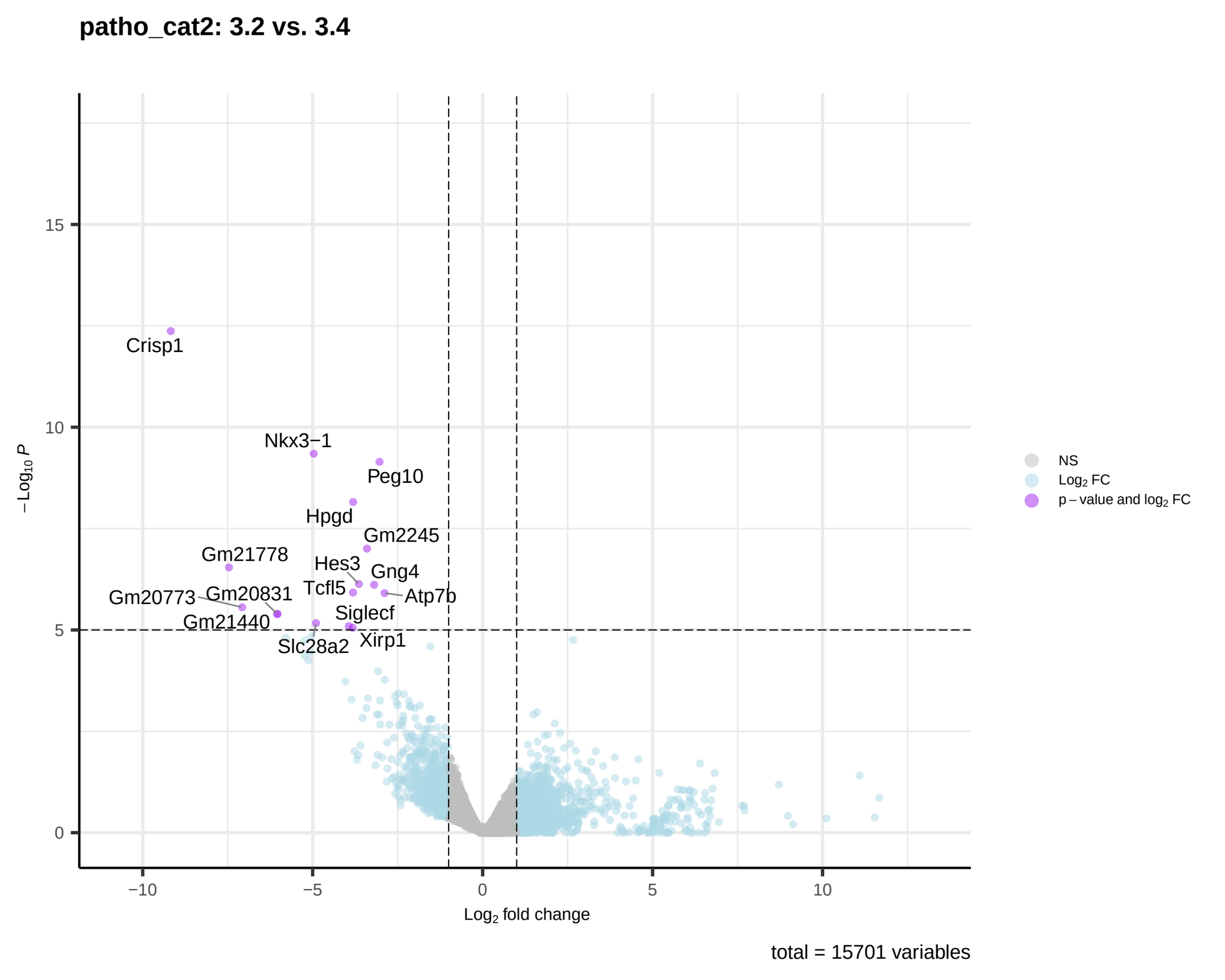

patho_cat2: 2.4 vs. 3.3
30
20
10
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Olfml2b
Otud7a
Gpc5
Bnc2
Abi3bp
Unc79
Gnal
Slc6a11
Col14a1
Thbs2
Scarf2
Cilp
Mfap5
Ryr3
Lrrc3
Loxl1
Lepr
Phldb2
Scn3a
Nalf1
Lum
Tbx15
Heyl
Filip1l
Nmnat2
Pcdh11x
Lrrc17
Fap
Acta2
Lamb2
Pde10a
Slc7a14
Lrrc15
Epha3
Rcn3
Islr
Ahnak
Kcnd2
Cntn4
Col1a1
Dpt
Dcn
Strip2
Col1a2
Met
Meox2
Mfap4
Nptx2
Cpz
Six3os1
Col3a1
Syndig1l
Tnmd
Ttr
Mmp13
Hoxd8
C1qtnf3
Kl
Actg2
Dpep1
Aqp2
Nrk
NS
Log2 FC
p−value
p − value and log2 FC
total = 15678 variables

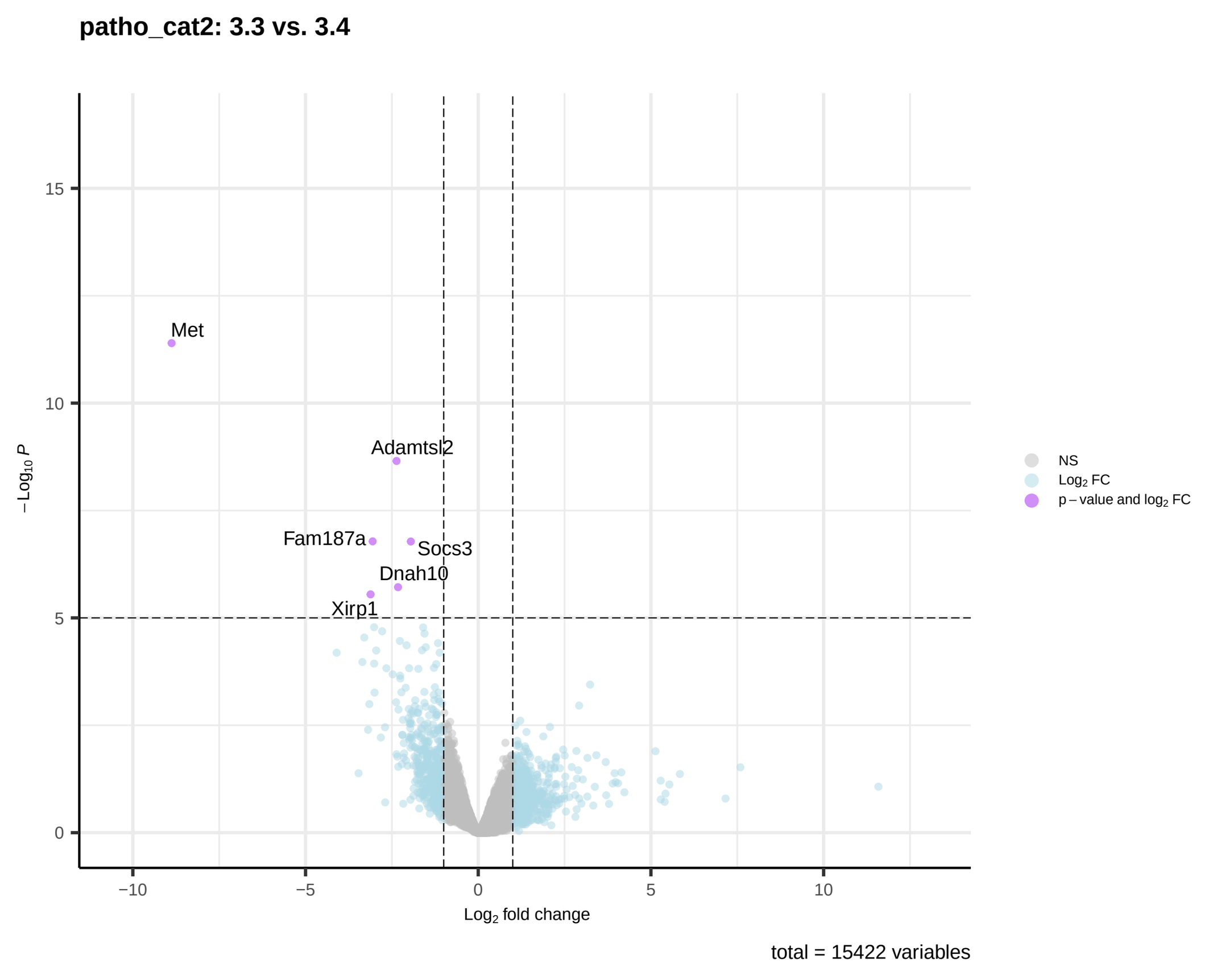

patho_cat2: 2.4 vs. 3.4
Svep1
Mfap5
Medag
Cpz
Eln
Smoc2
Lrrc17
Lox
Ccn4
Csrp2
Wnt9a
H19
C1qtnf3
Dpt
Igf1
Rpl39l
Hoxd8
Tnnt3
Aqp2
Bglap
Bglap2
Myh4
Ckm
Myh2
Ibsp
Myh1
Mepe
Xirp2
Otud7a
Cntn4
Nalf1
Gpc5
Pnlip
40
20
0
−10
−5
0
5
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p−value
p – value and $\log_2$ FC
total = 14410 variables

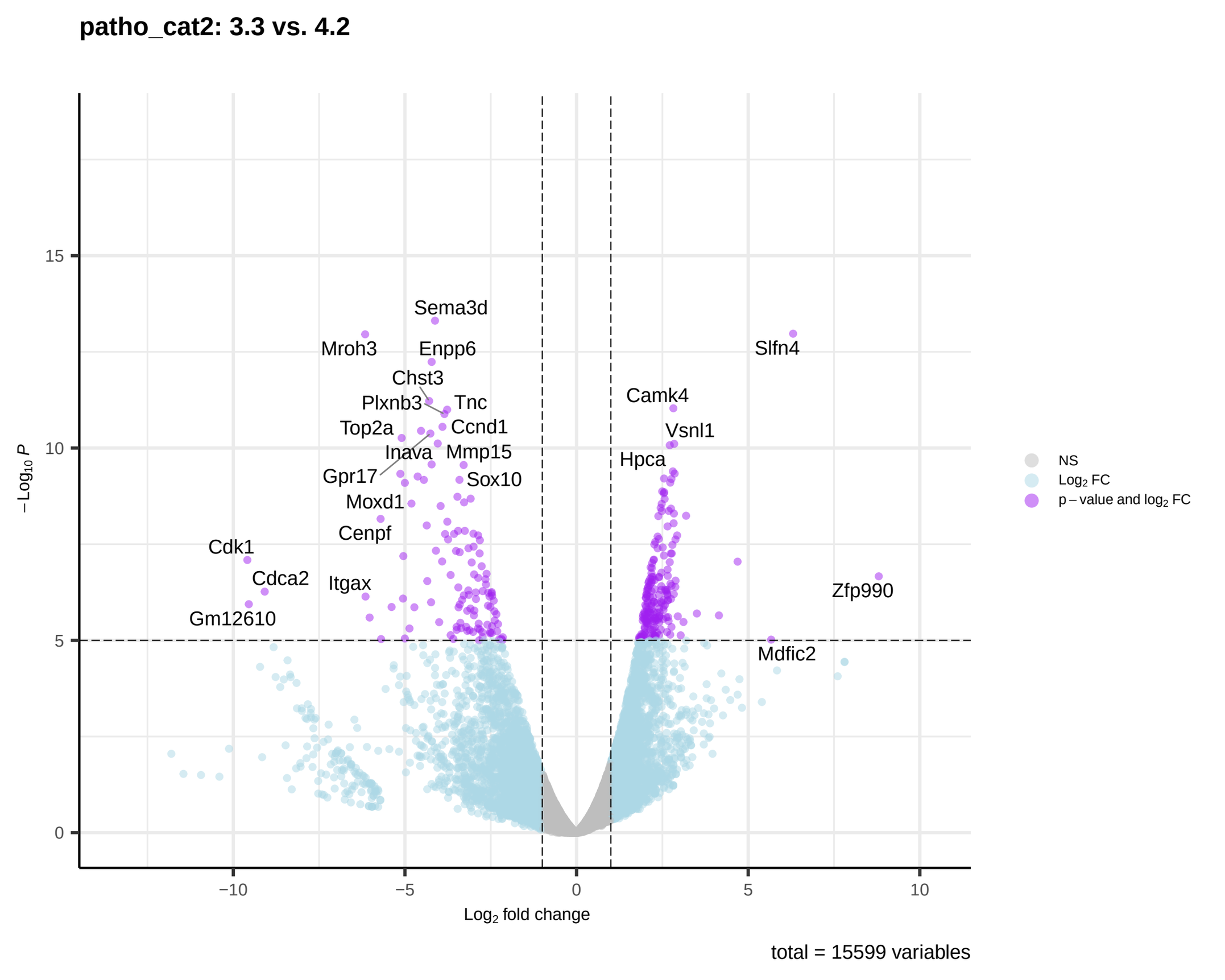

patho_cat2: 2.4 vs. 4.2
40
30
20
10
0
−Log10 P
−15
−10
−5
0
5
10
Log2 fold change
Unc79
Otud7a
Gnal
Syt14
Ppm1e
Prkce
Scn8a
Lmo3
Wipf3
Tspoap1
Six3
Ttr
Hspg2
Adgrg6
Col5a2
Antxr2
Col27a1
Loxl2
Postn
Col8a1
Rnase4
Col3a1
Adamts12
Tnc
Col1a2
Ppic
Col1a1
Cilp
Cdca2
Dpt
Tlr8
Cdk1
Cpz
NS
Log2 FC
p – value and log2 FC
total = 16168 variables

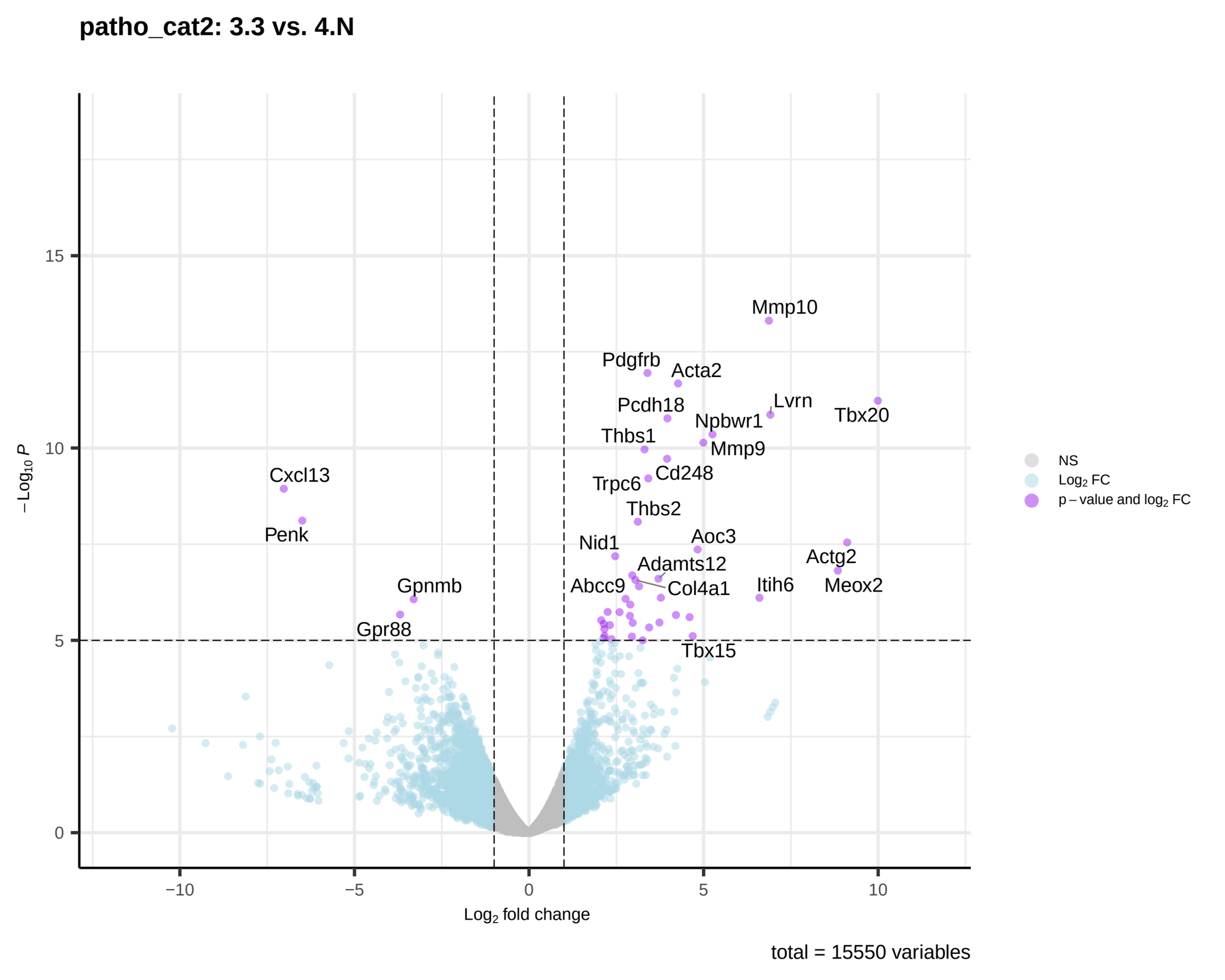

patho_cat2: 2.4 vs. 4.N
Abi3bp
Hoxa3
Syt4
Svep1
Cxcl12
Bnc2
Adgrg6
Cilp
Mfap5
Cyp2d22
BC034090
Scn8a
Six3
Scn3a
Clec3a
Epha3
Cspg4
Luzp2
Tub
Col14a1
Synpo
Reln
Six3os1
Dpt
Cav2
Timp4
Ttr
Lsp1
Mfap4
Nxf3
Scn10a
Cpz
Itgbl1
Hoxa5
Tfap2c
NS
Log2 FC
p – value and log2 FC
−Log10 P
Log2 fold change
total = 16148 variables

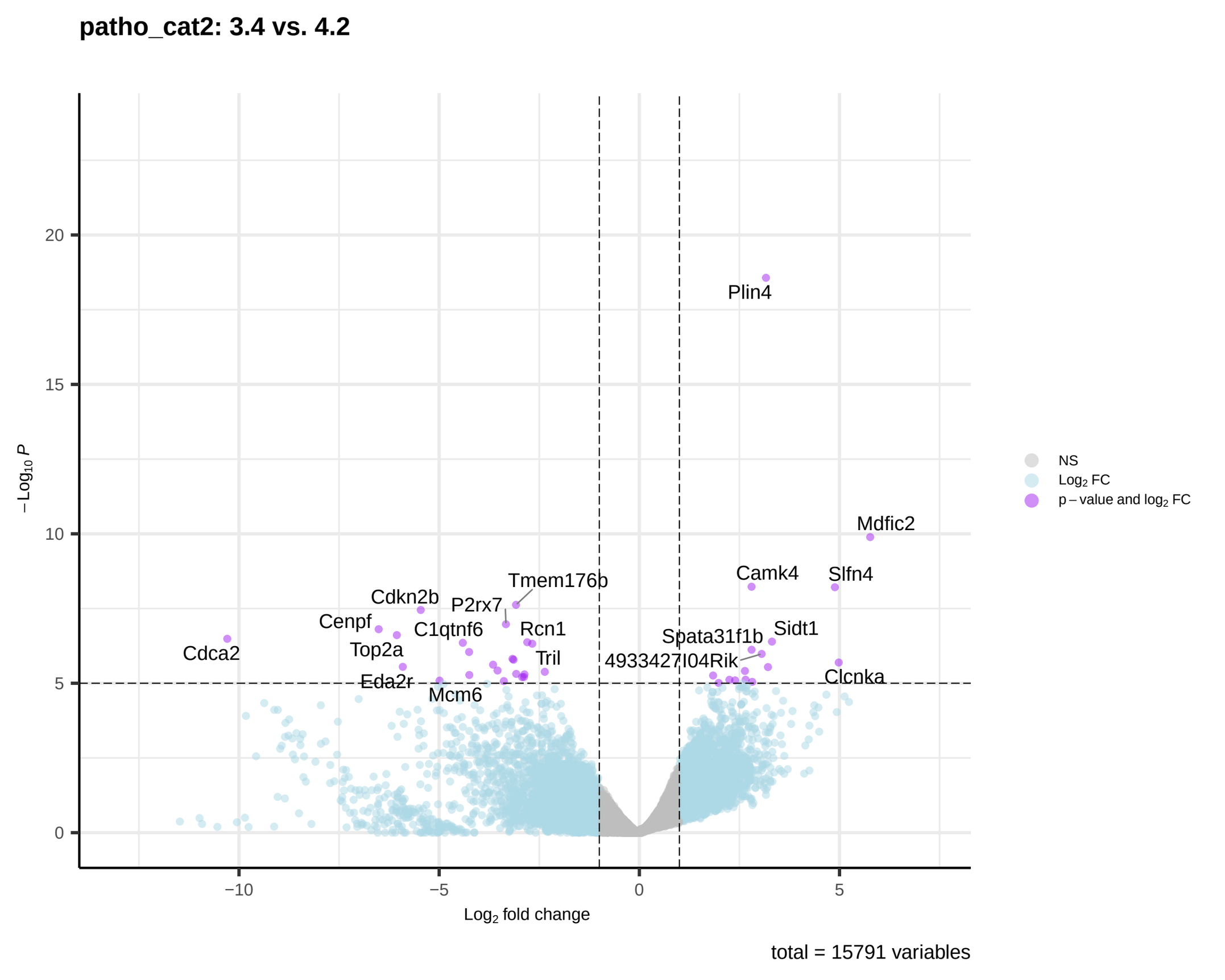

patho_cat2: 3.2 vs. 3.3
12
9
6
3
0
−Log10 P
Cxcl13
Jchain
Peg10
Gpnmb
Scn11a
−10
−5
0
5
10
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15513 variables

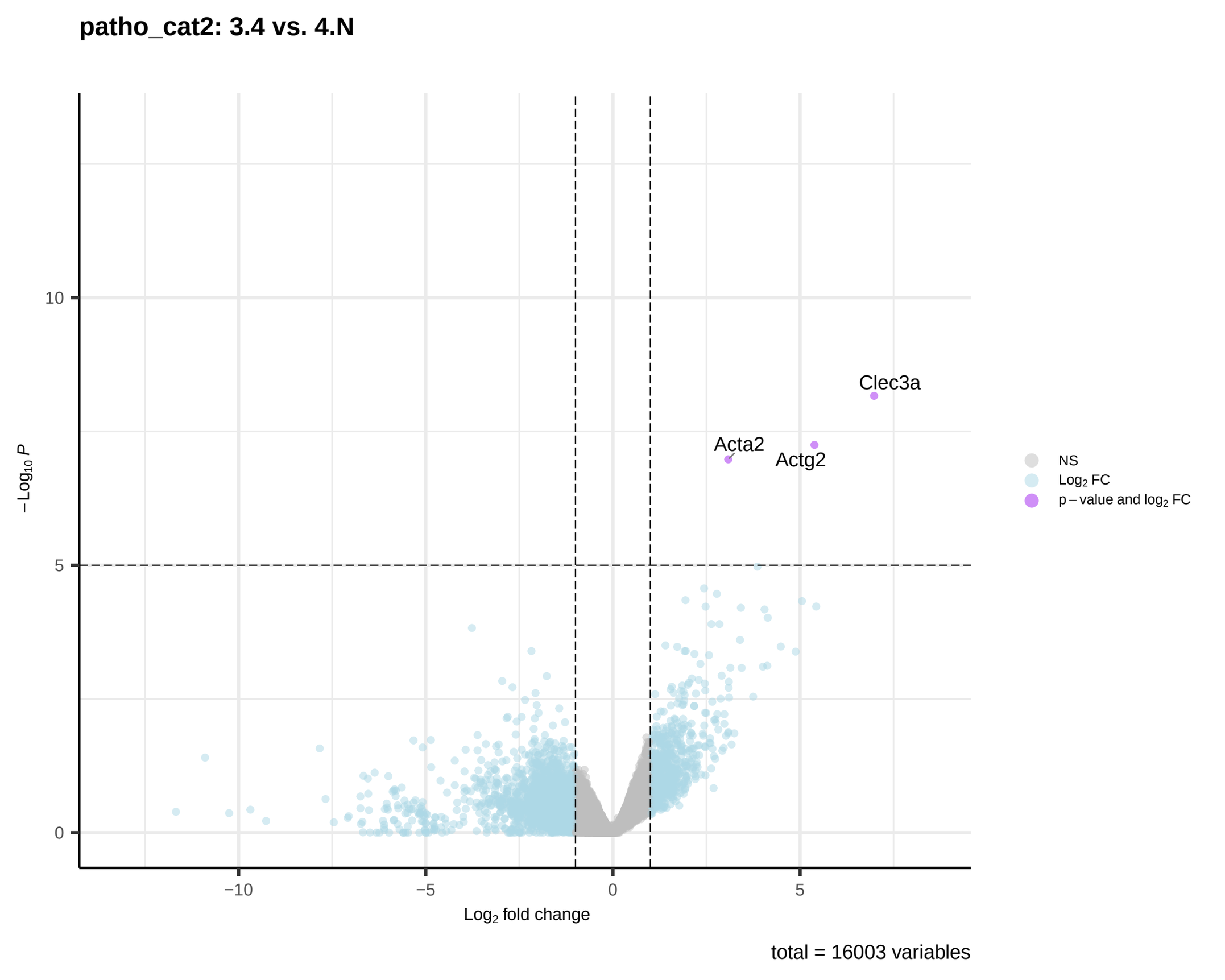

patho_cat2: 3.2 vs. 4
Crisp1
Nkx3−1
Peg10
Hpgd
Gm2245
Gm21778
Hes3
Gng4
Tcfl5
Atp7b
Gm20773
Gm20831
Gm21440
Siglecf
Slc28a2
Xirp1
15
10
5
0
−10
−5
0
5
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15701 variables

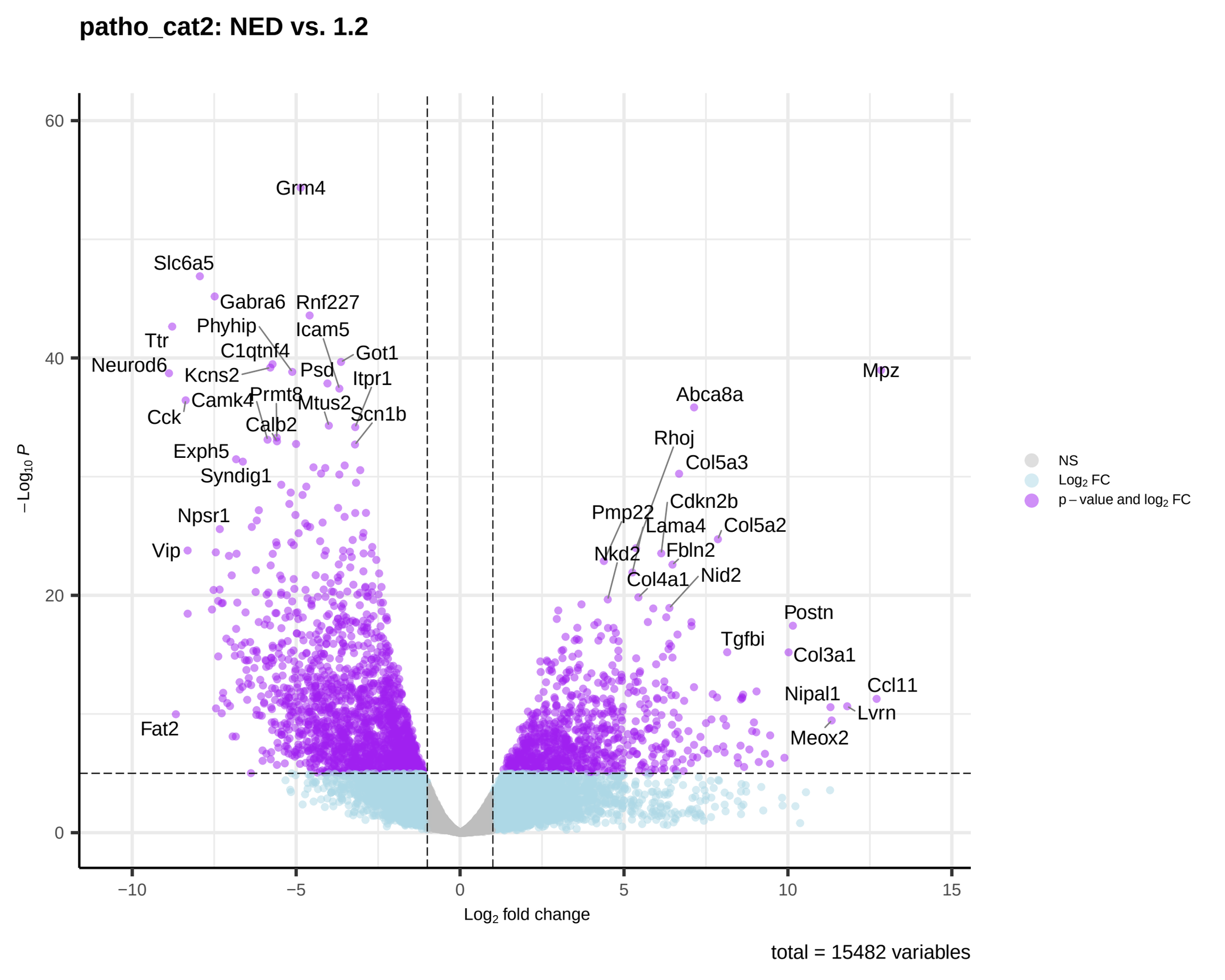

patho_cat2: 3.3 vs. 4
Met
Adamtsl2
Fam187a
Socs3
Dnah10
Xirp1
15
10
5
0
−10
−5
0
5
10
−Log10 P
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 15422 variables

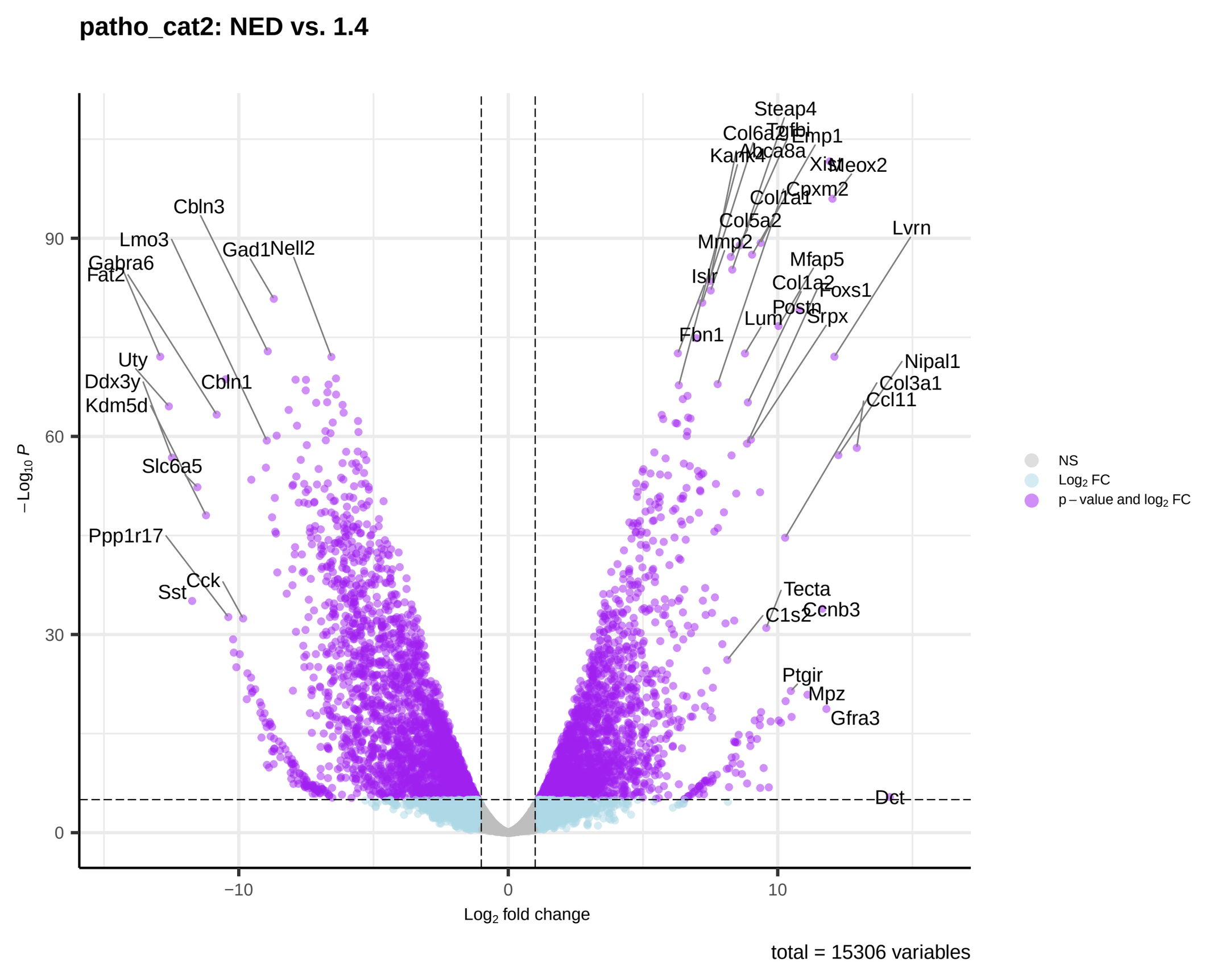

patho_cat2: 3.3 vs. 4.2
Sema3d
Mroh3
Enpp6
Slfn4
Chst3
Camk4
Plxnb3
Tnc
Vsnl1
Top2a
Ccnd1
Hpca
Inava
Mmp15
Gpr17
Sox10
Moxd1
Cenpf
Cdk1
Cdca2
Itgax
Zfp990
Gm12610
Mdfic2
15
10
5
0
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and $\log_2$ FC
total = 15599 variables

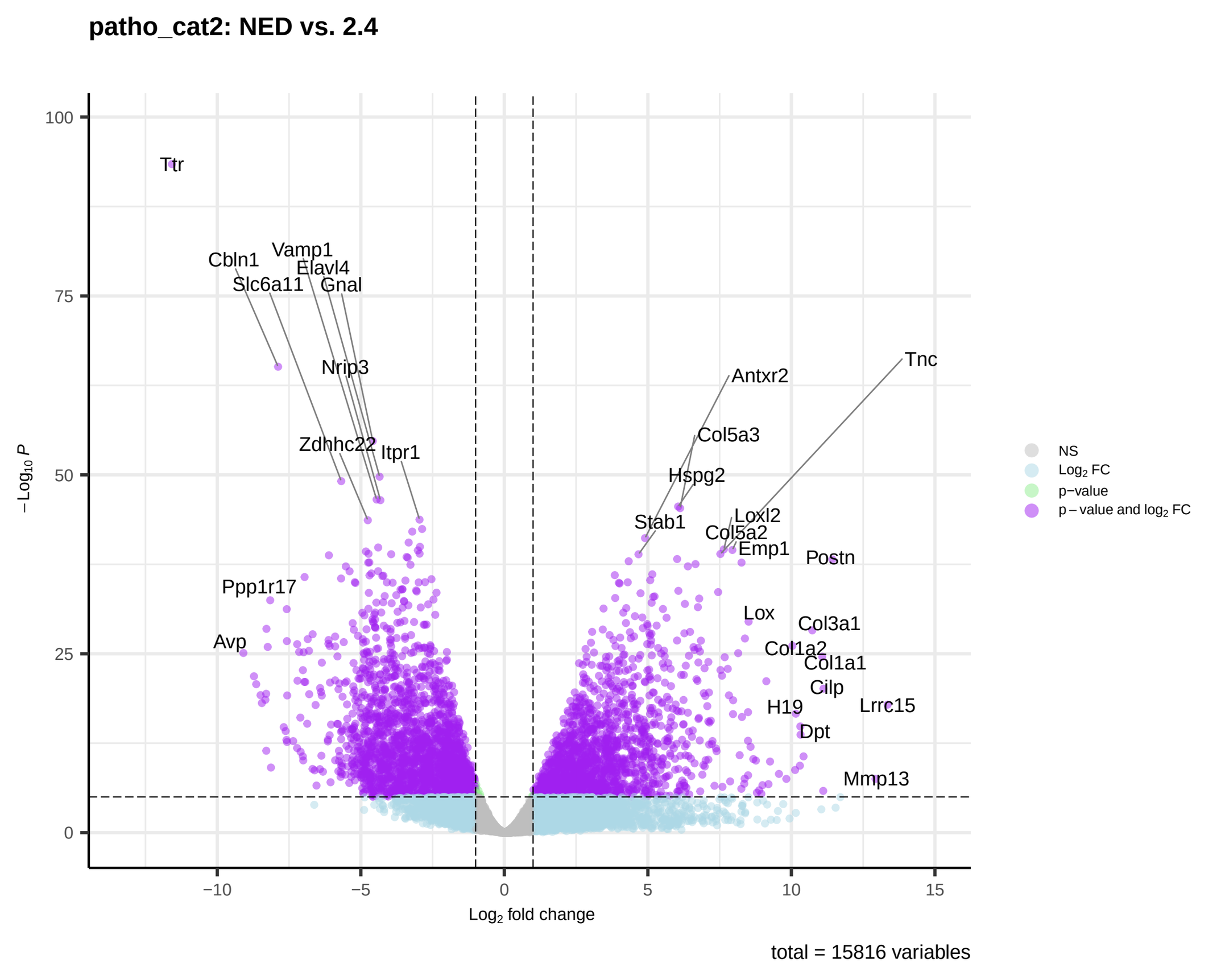

patho_cat2: 3.3 vs. 4.N
15
10
5
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Mmp10
Pdgfrb
Acta2
Pcdh18
Lvrn
Tbx20
Npbwr1
Thbs1
Mmp9
Cxcl13
Cd248
Trpc6
Thbs2
Penk
Nid1
Aoc3
Actg2
Adamts12
Gpnmb
Abcc9
Col4a1
Itih6
Meox2
Gpr88
Tbx15
NS
Log2 FC
p – value and log2 FC
total = 15550 variables

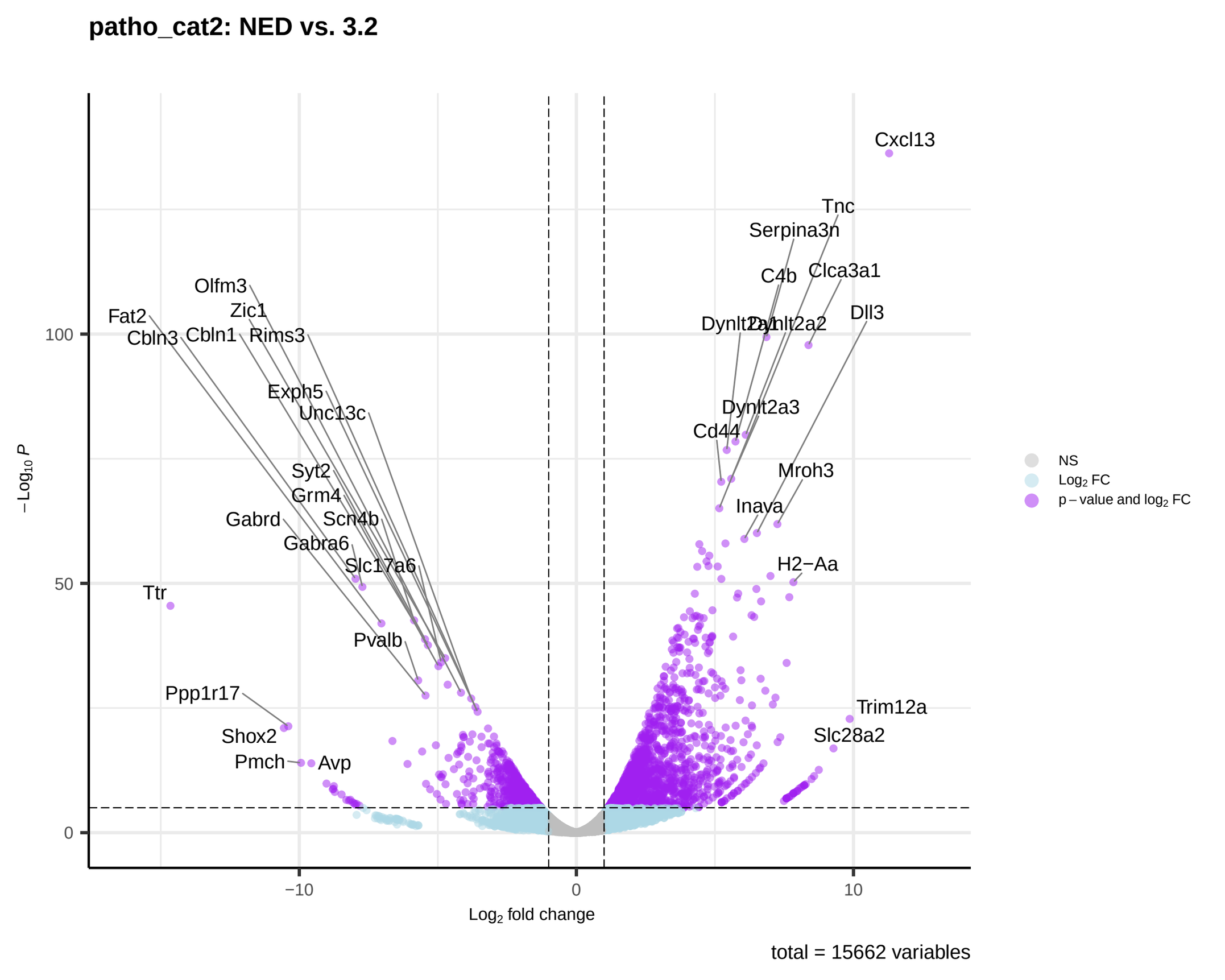

patho_cat2: 3.4 vs. 4.2
20
15
10
5
0
−Log10 P
−10
−5
0
5
Log2 fold change
Plin4
Mdfic2
Camk4
Slfn4
Tmem176b
Cdkn2b
P2rx7
Cenpf
C1qtnf6
Rcn1
Top2a
Cdca2
Tril
Spata31f1b
Sidt1
4933427I04Rik
Clcnka
Eda2r
Mcm6
NS
Log2 FC
p – value and log2 FC
total = 15791 variables

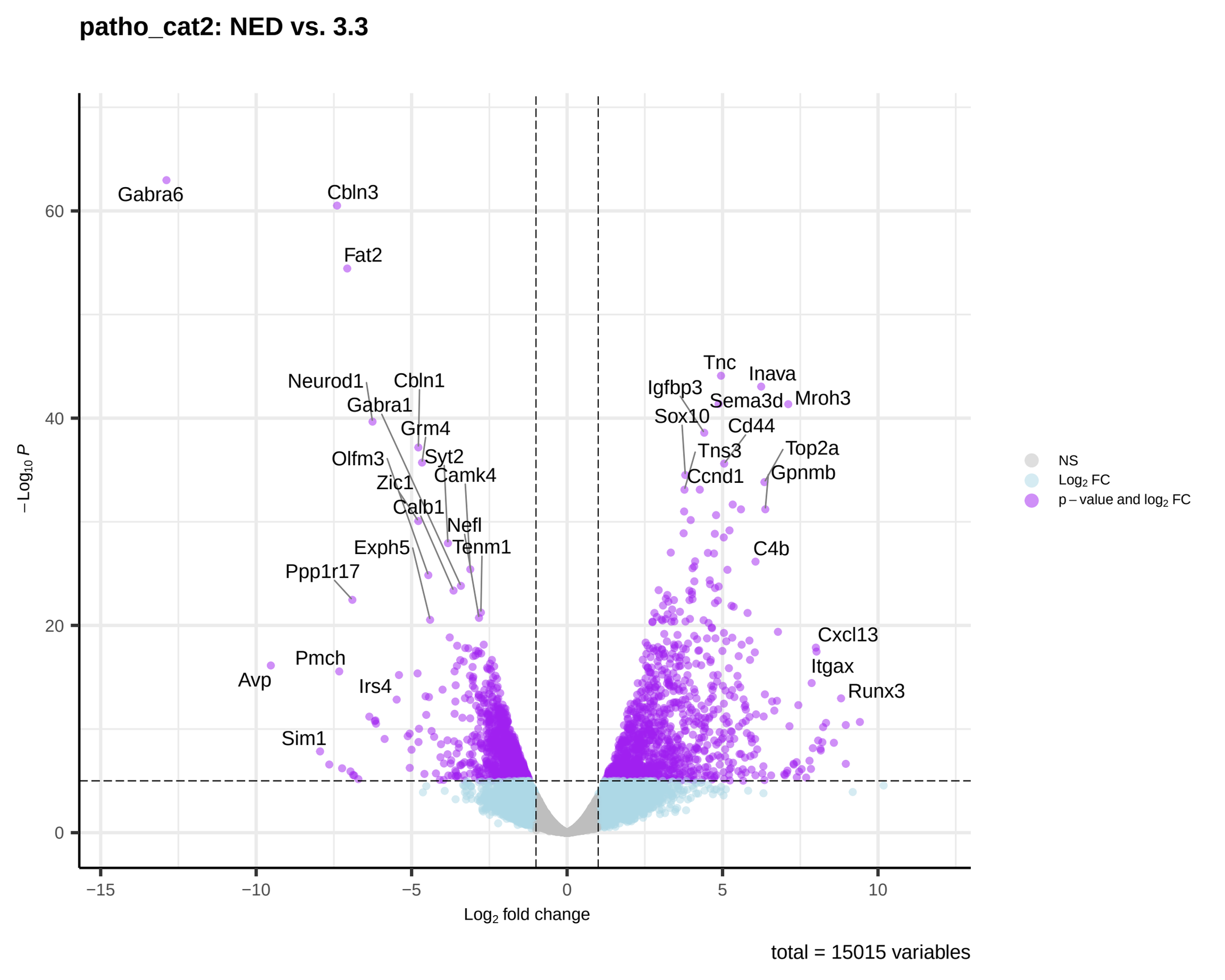

patho_cat2: 3.4 vs. 4.N
10
5
0
−Log10 P
−10
−5
0
5
Log2 fold change
Clec3a
Acta2
Actg2
NS
Log2 FC
p – value and log2 FC
total = 16003 variables

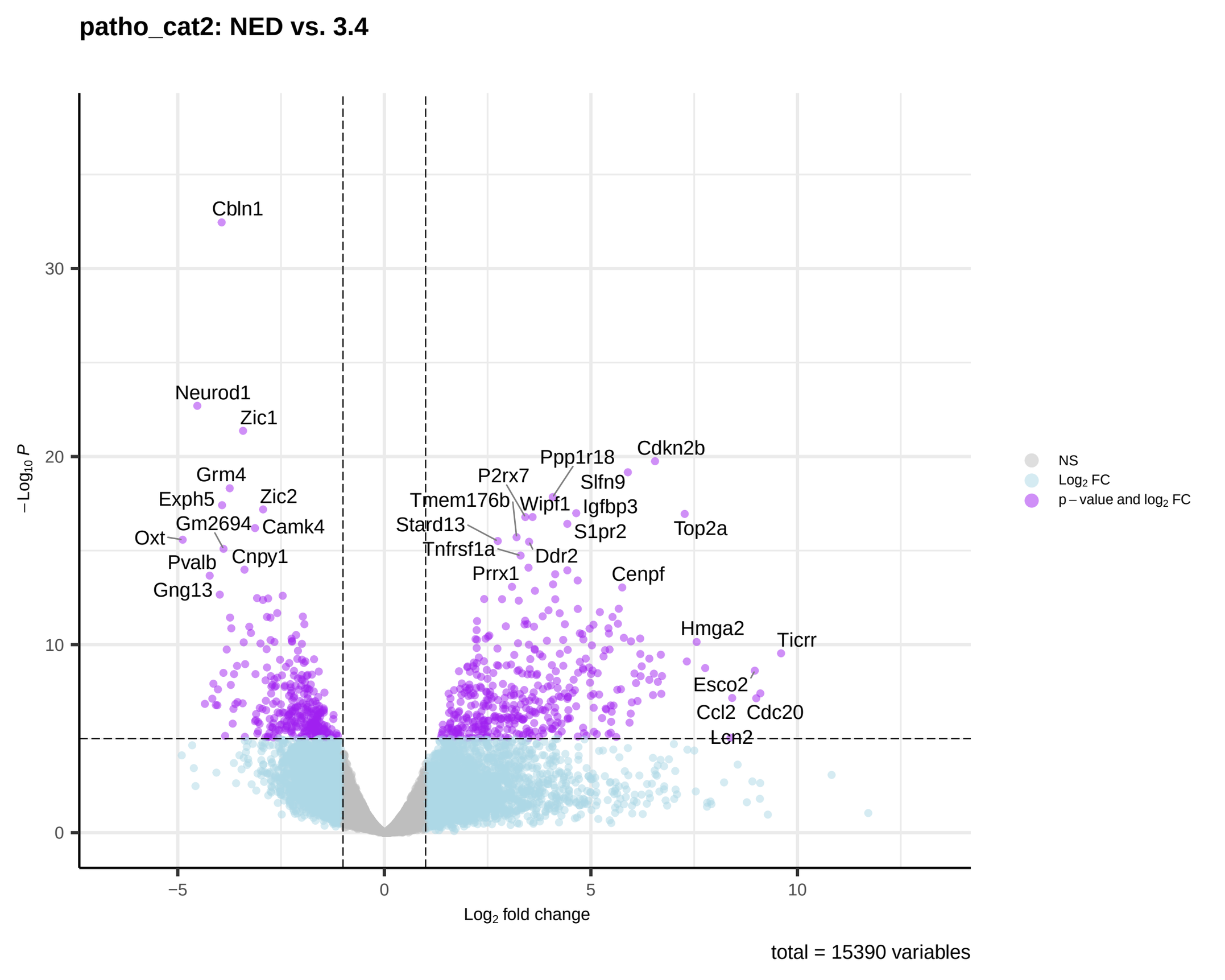

patho_cat2: NED vs. 1.2
60
40
20
0
−Log10 P
Grm4
Slc6a5
Gabra6
Rnf227
Phyhip
Icam5
Ttr
C1qtnf4
Got1
Neurod6
Kcns2
Psd
Itpr1
Prmt8
Camk4
Mtus2
Cck
Scn1b
Calb2
Exph5
Syndig1
Npsr1
Vip
Fat2
Mpz
Abca8a
Rhoj
Col5a3
Cdkn2b
Pmp22
Lama4
Col5a2
Nkd2
Fbln2
Col4a1
Nid2
Postn
Tgfbi
Col3a1
Ccl11
Nipal1
Lvrn
Meox2
−10
−5
0
5
10
15
Log2 fold change
NS
Log2 FC
p – value and log2 FC
total = 15482 variables


patho_cat2: NED vs. 1.4
Steap4
Col6a2
Tgfbi
Emp1
Kank4
Abca8a
Xist
Meox2
Cpxm2
Col1a1
Col5a2
Lvrn
Mmp2
Mfap5
Islr
Col1a2
Foxs1
Postn
Lum
Srpx
Fbn1
Nipal1
Col3a1
Ccl11
Cbln3
Lmo3
Gad1
Nell2
Gabra6
Fat2
Uty
Ddx3y
Cbln1
Kdm5d
Slc6a5
Ppp1r17
Cck
Sst
Tecta
C1s2
Ccnb3
Ptgir
Mpz
Gfra3
Dct
90
60
30
0
−10
0
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15306 variables

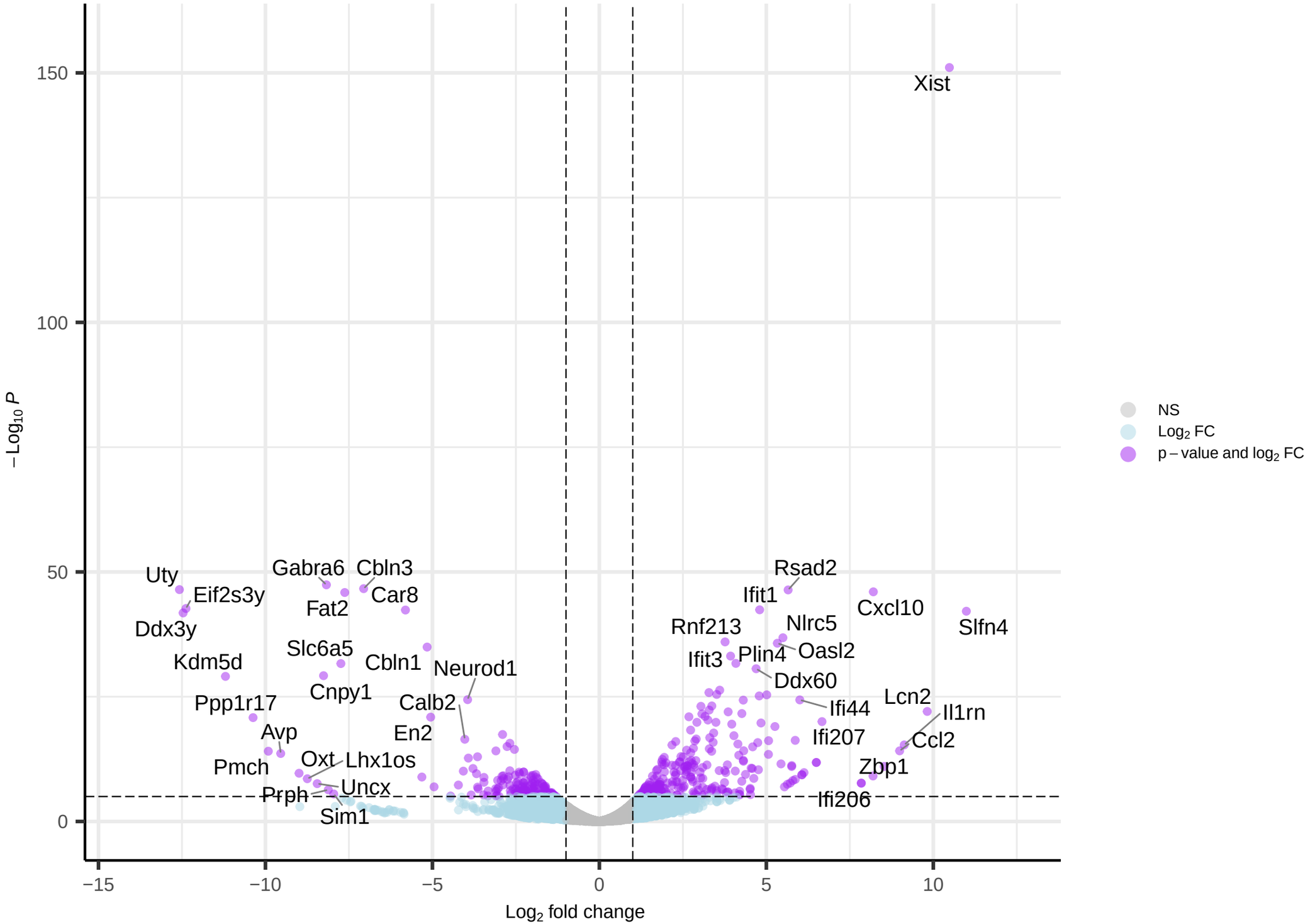

patho_cat2: NED vs. 2.4
100
75
50
25
0
−Log10 P
Ttr
Cbln1
Vamp1
Elavl4
Slc6a11
Gnal
Nrip3
Zdhhc22
Itpr1
Ppp1r17
Avp
Tnc
Antxr2
Col5a3
Hspg2
Stab1
Loxl2
Col5a2
Emp1
Postn
Lox
Col3a1
Col1a2
Col1a1
Cilp
H19
Lrrc15
Dpt
Mmp13
−10
−5
0
5
10
15
Log2 fold change
NS
Log2 FC
p−value
p − value and log2 FC
total = 15816 variables


patho_cat2: NED vs. 3.2
Cxcl13
Tnc
Serpina3n
C4b
Clca3a1
Dll3
Olfm3
Zic1
Fat2
Cbln3
Cbln1
Rims3
Dynlt2a1
Dynlt2a2
Exph5
Unc13c
Dynlt2a3
Cd44
Mroh3
Syt2
Grm4
Inava
Gabrd
Scn4b
Gabra6
H2−Aa
Slc17a6
Ttr
Pvalb
Ppp1r17
Trim12a
Shox2
Slc28a2
Pmch
Avp
100
50
0
−10
0
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15662 variables

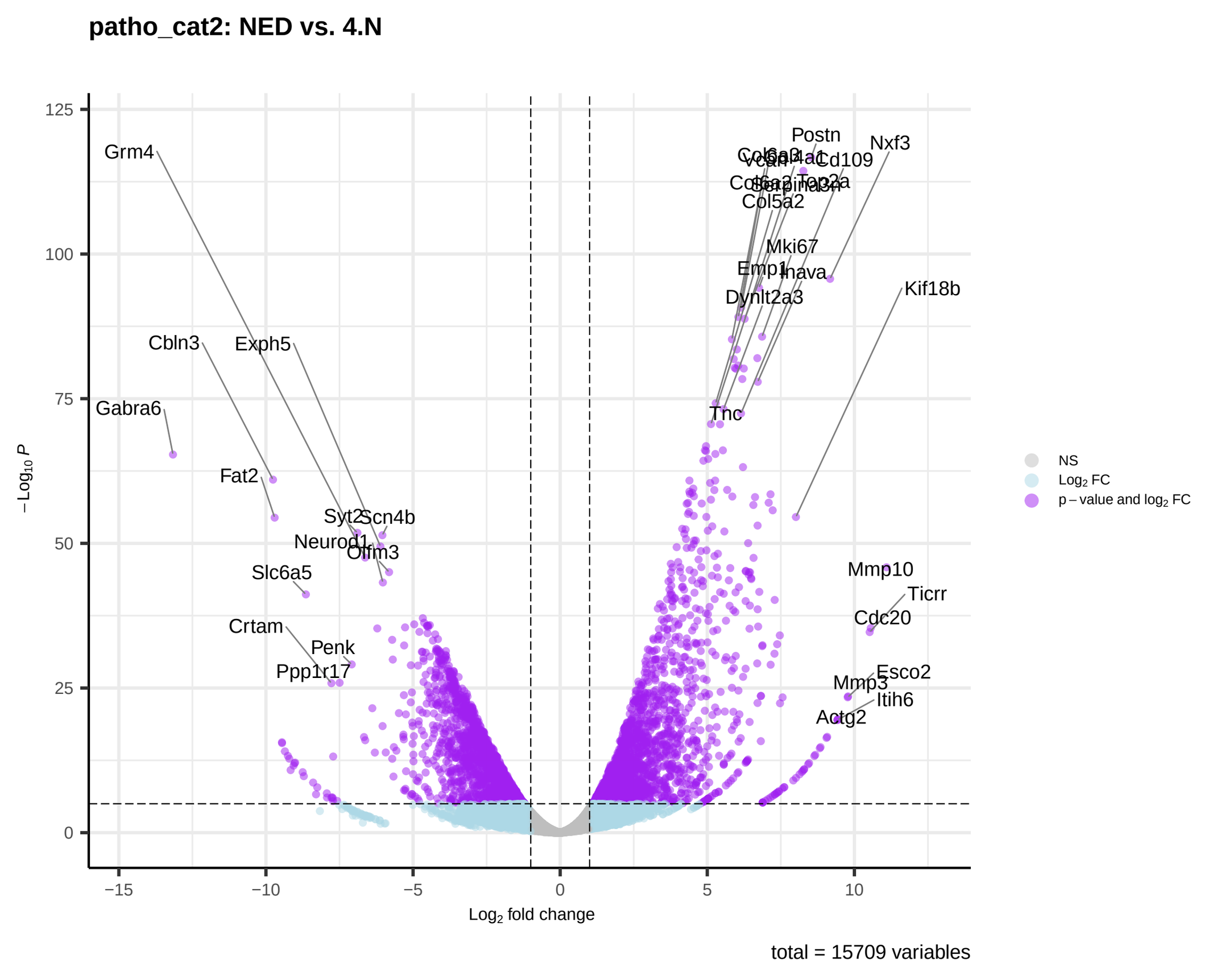

patho_cat2: NED vs. 3.3
Gabra6
Cbln3
Fat2
Neurod1
Cbln1
Gabra1
Grm4
Syt2
Olfm3
Camk4
Zic1
Calb1
Nefl
Exph5
Tenm1
Ppp1r17
Pmch
Avp
Irs4
Sim1
Tnc
Inava
Igfbp3
Sema3d
Mroh3
Sox10
Cd44
Tns3
Top2a
Ccnd1
Gpnmb
C4b
Cxcl13
Itgax
Runx3
60
40
20
0
−15
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15015 variables

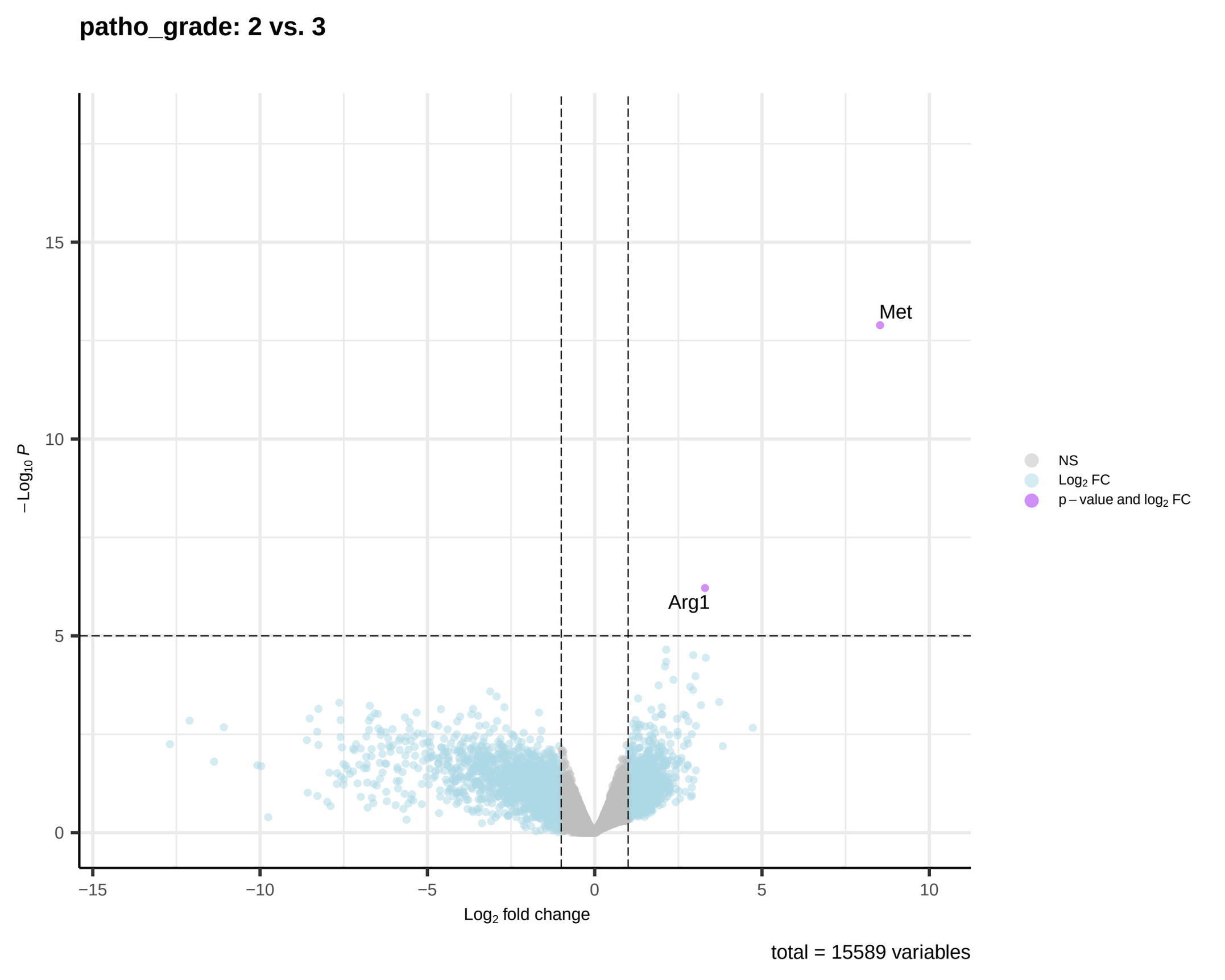

patho_cat2: NED vs. 3.4
Cbln1
Neurod1
Zic1
Grm4
Exph5
Zic2
Gm2694
Camk4
Oxt
Cnpy1
Pvalb
Gng13
Ppp1r18
Cdkn2b
P2rx7
Slfn9
Tmem176b
Wipf1
Igfbp3
Stard13
S1pr2
Top2a
Tnfrsf1a
Ddr2
Prrx1
Cenpf
Hmga2
Ticrr
Esco2
Ccl2
Cdc20
Lcn2
30
20
10
0
−5
0
5
10
$-\text{Log}_{10}P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15390 variables

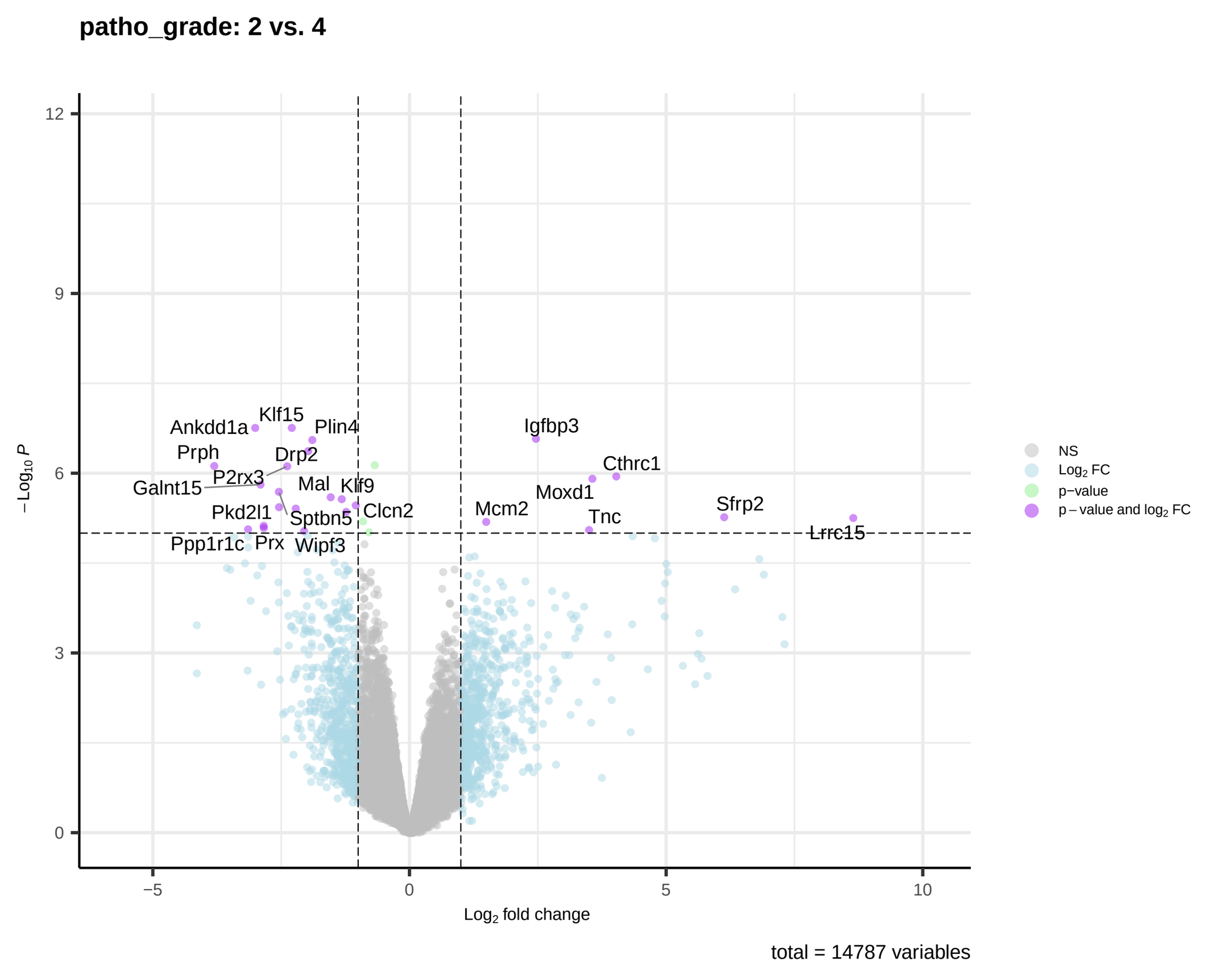
patho_cat2: NED vs. 4.2

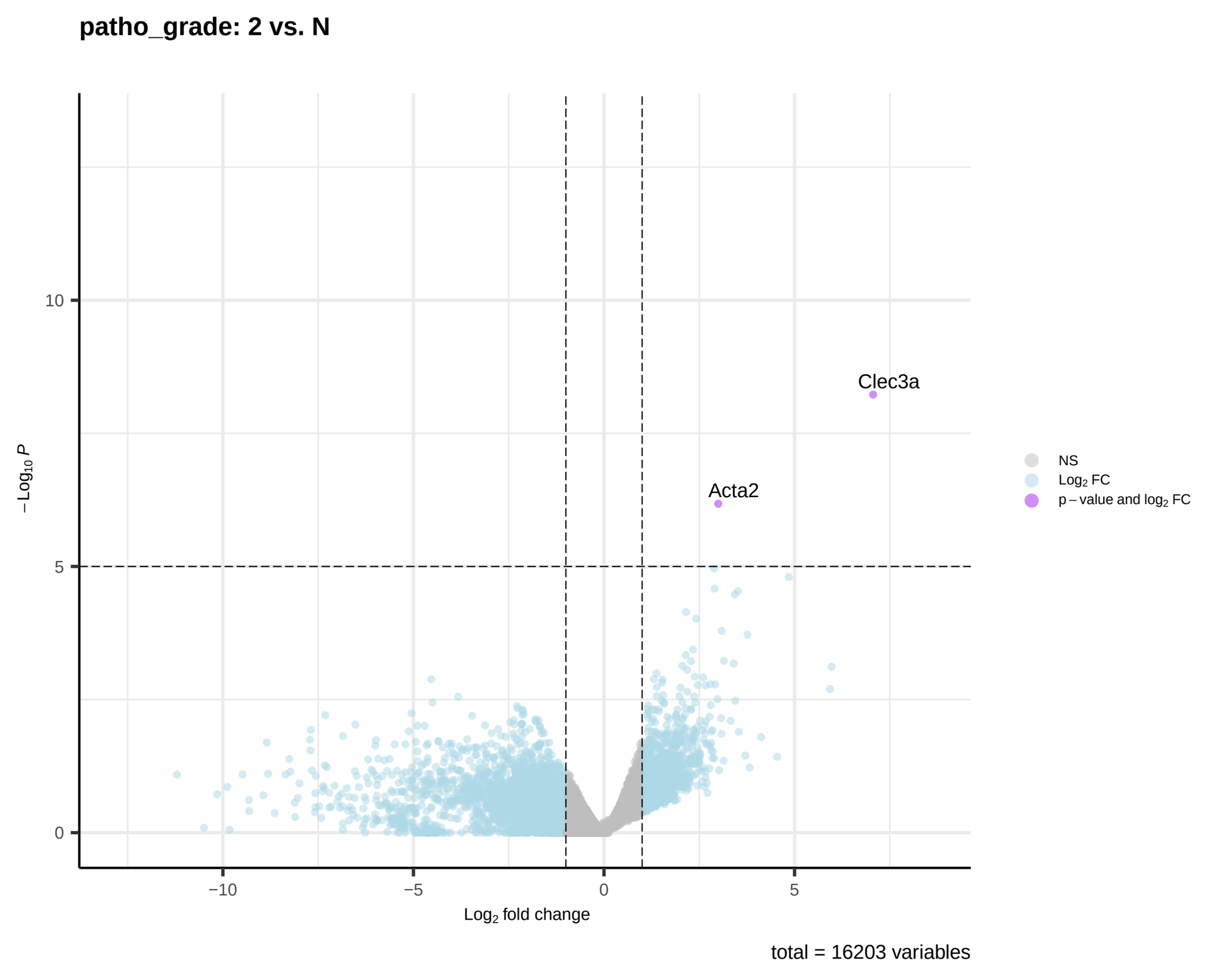


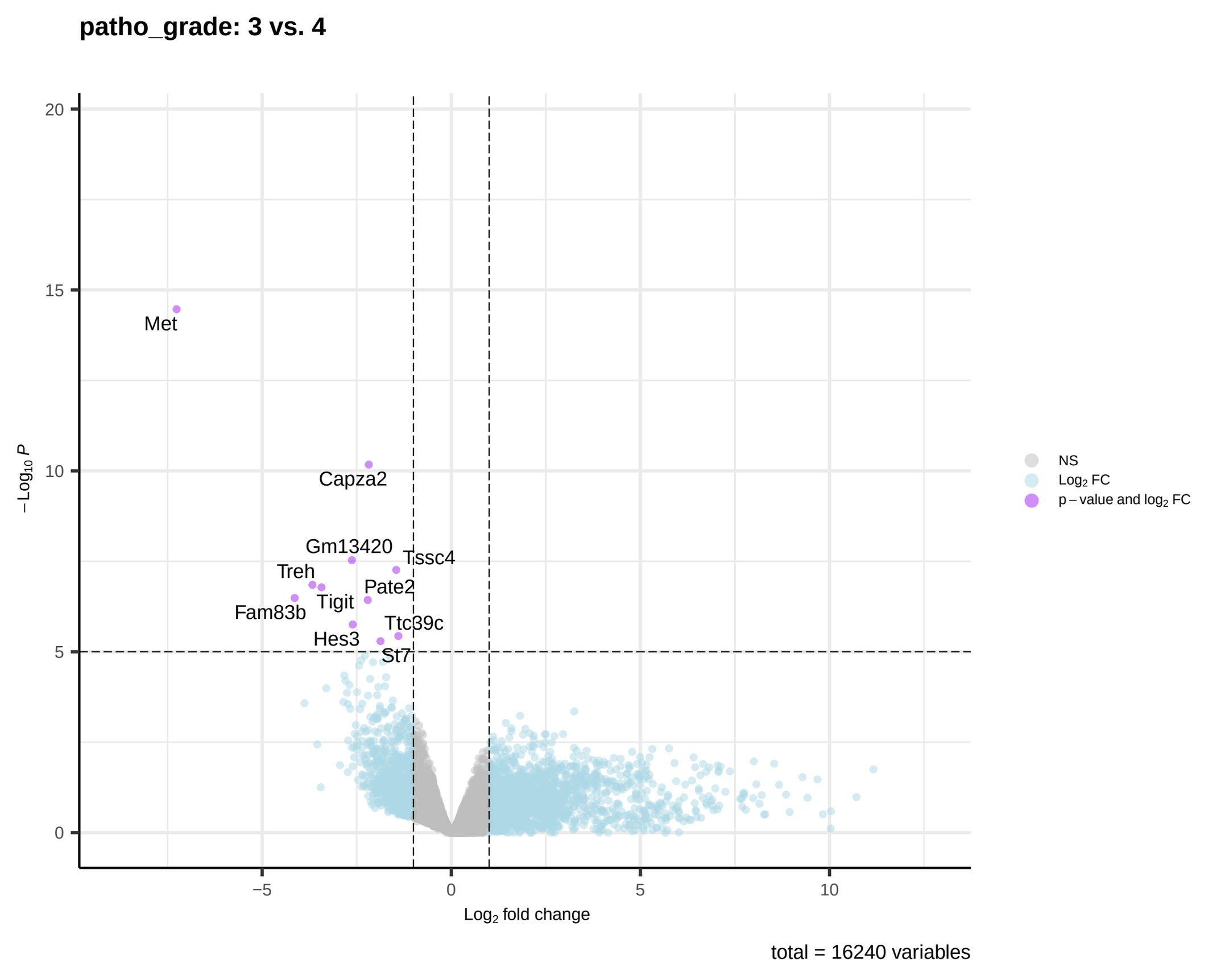
total = 15353 variables

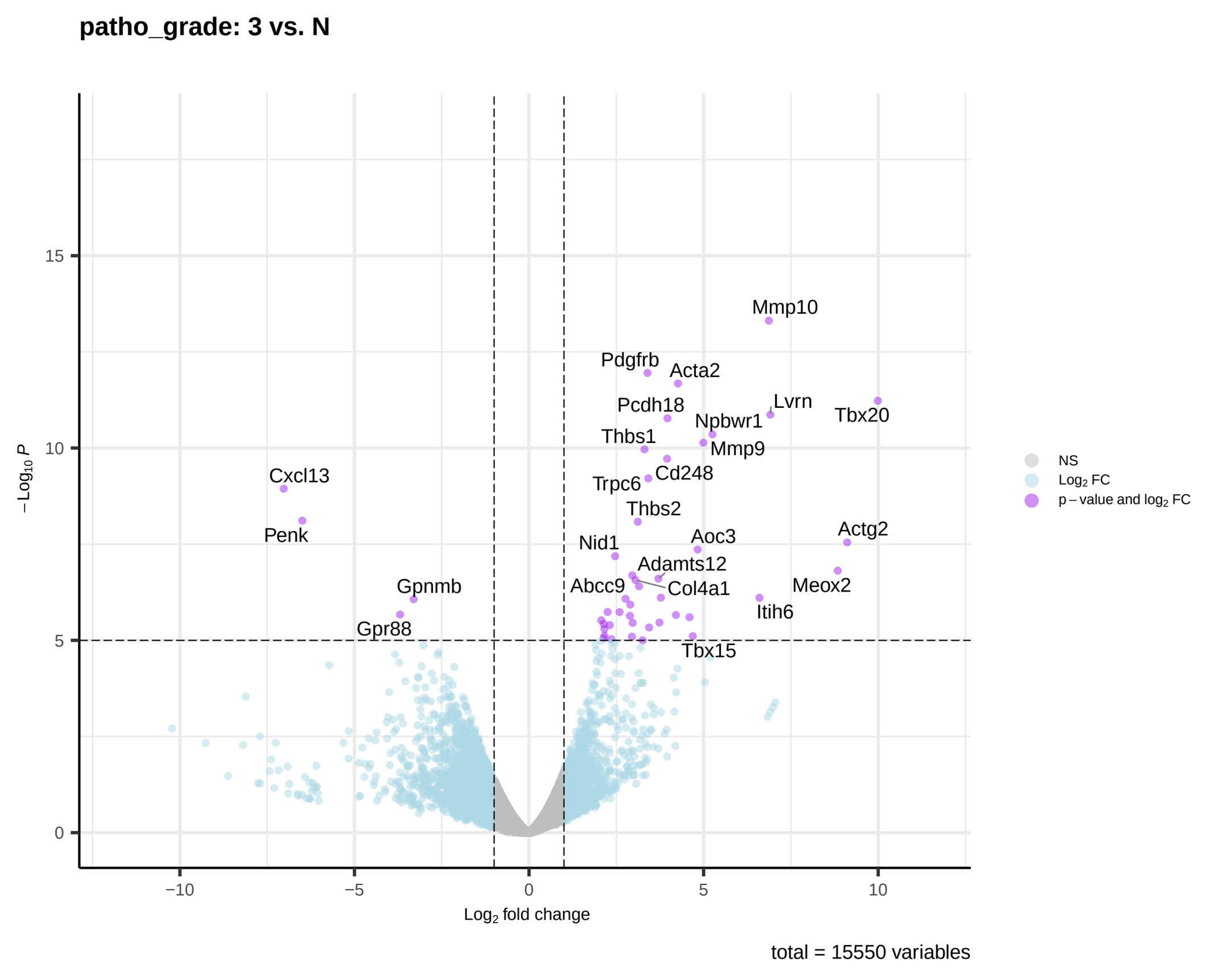

patho_cat2: NED vs. 4.N
125
100
75
50
25
0
−Log10 P
−15
−10
−5
0
5
10
Log2 fold change
Grm4
Cbln3
Exph5
Gabra6
Fat2
Syt2
Scn4b
Neurod1
Olfm3
Slc6a5
Crtam
Penk
Ppp1r17
Postn
Nxf3
Cd109
Col5a2
Mki67
Emp1
Inava
Dynlt2a3
Kif18b
Tnc
Mmp10
Ticrr
Cdc20
Esco2
Mmp3
Itih6
Actg2
NS
Log2 FC
p – value and log2 FC
total = 15709 variables

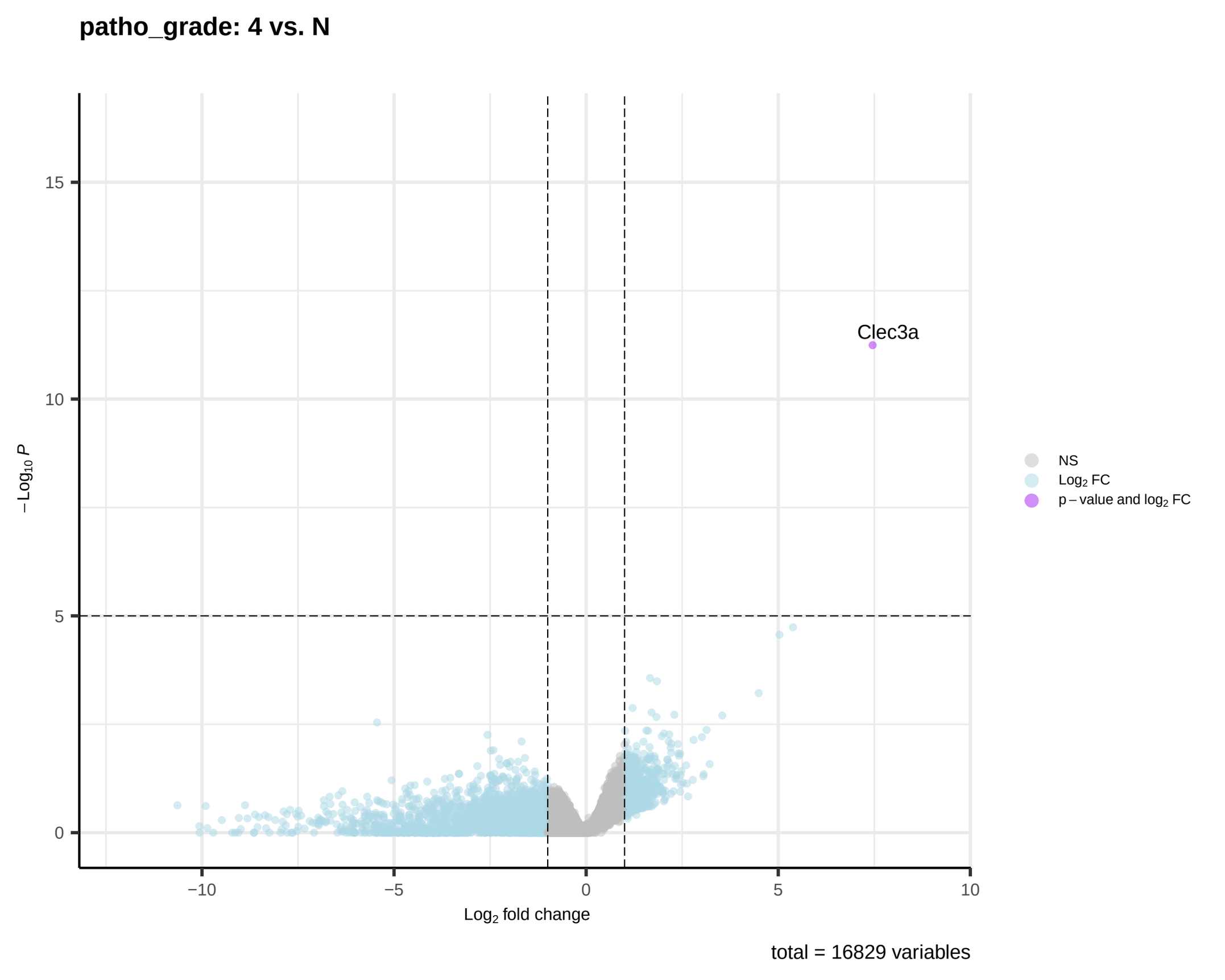

patho_grade: 2 vs. 3
Met
Arg1
15
10
5
0
−15
−10
−5
0
5
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and $\log_2$ FC
total = 15589 variables

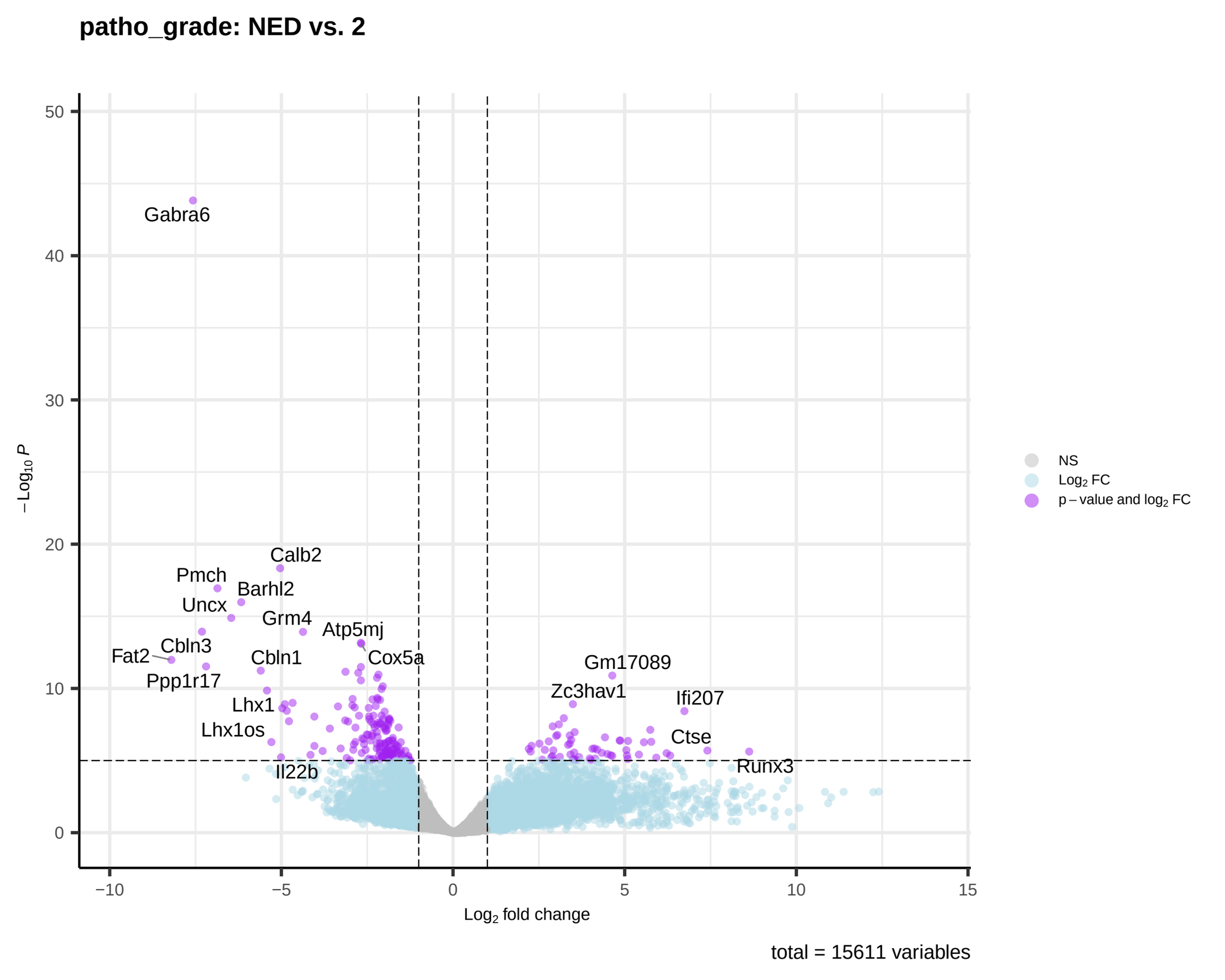

patho_grade: 2 vs. 4
12
9
6
3
0
−Log10 P
−5
0
5
10
Log2 fold change
Ankdd1a
Klf15
Plin4
Prph
Drp2
P2rx3
Galnt15
Mal
Klf9
Pkd2l1
Sptbn5
Clcn2
Ppp1r1c
Prx
Wipf3
Igfbp3
Cthrc1
Moxd1
Mcm2
Tnc
Sfrp2
Lrrc15
NS
Log2 FC
p−value
p − value and log2 FC
total = 14787 variables


patho_grade: 2 vs. N
Clec3a
Acta2
10
5
0
−10
−5
0
5
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 16203 variables

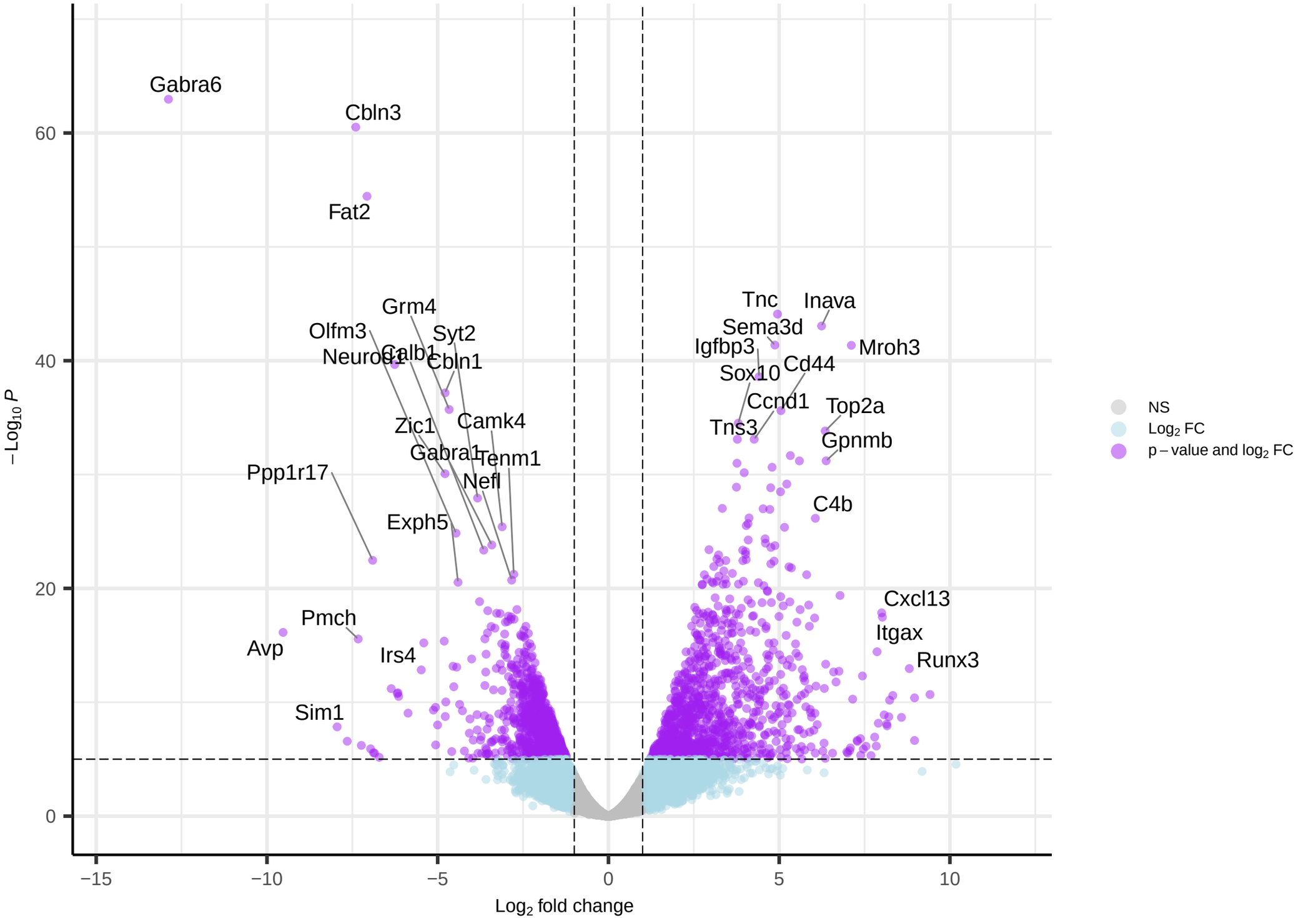

patho_grade: 3 vs. 4
20
15
10
5
0
−Log10 P
Met
Capza2
Gm13420
Tssc4
Treh
Pate2
Tigit
Fam83b
Ttc39c
Hes3
St7
−5
0
5
10
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 16240 variables


patho_grade: 3 vs. N
15
10
5
0
−Log10 P
−10
−5
0
5
10
Log2 fold change
Mmp10
Pdgfrb
Acta2
Pcdh18
Lvrn
Tbx20
Npbwr1
Thbs1
Mmp9
Cxcl13
Cd248
Trpc6
Thbs2
Penk
Actg2
Nid1
Aoc3
Adamts12
Gpnmb
Abcc9
Col4a1
Meox2
Itih6
Gpr88
Tbx15
NS
Log2 FC
p – value and log2 FC
total = 15550 variables

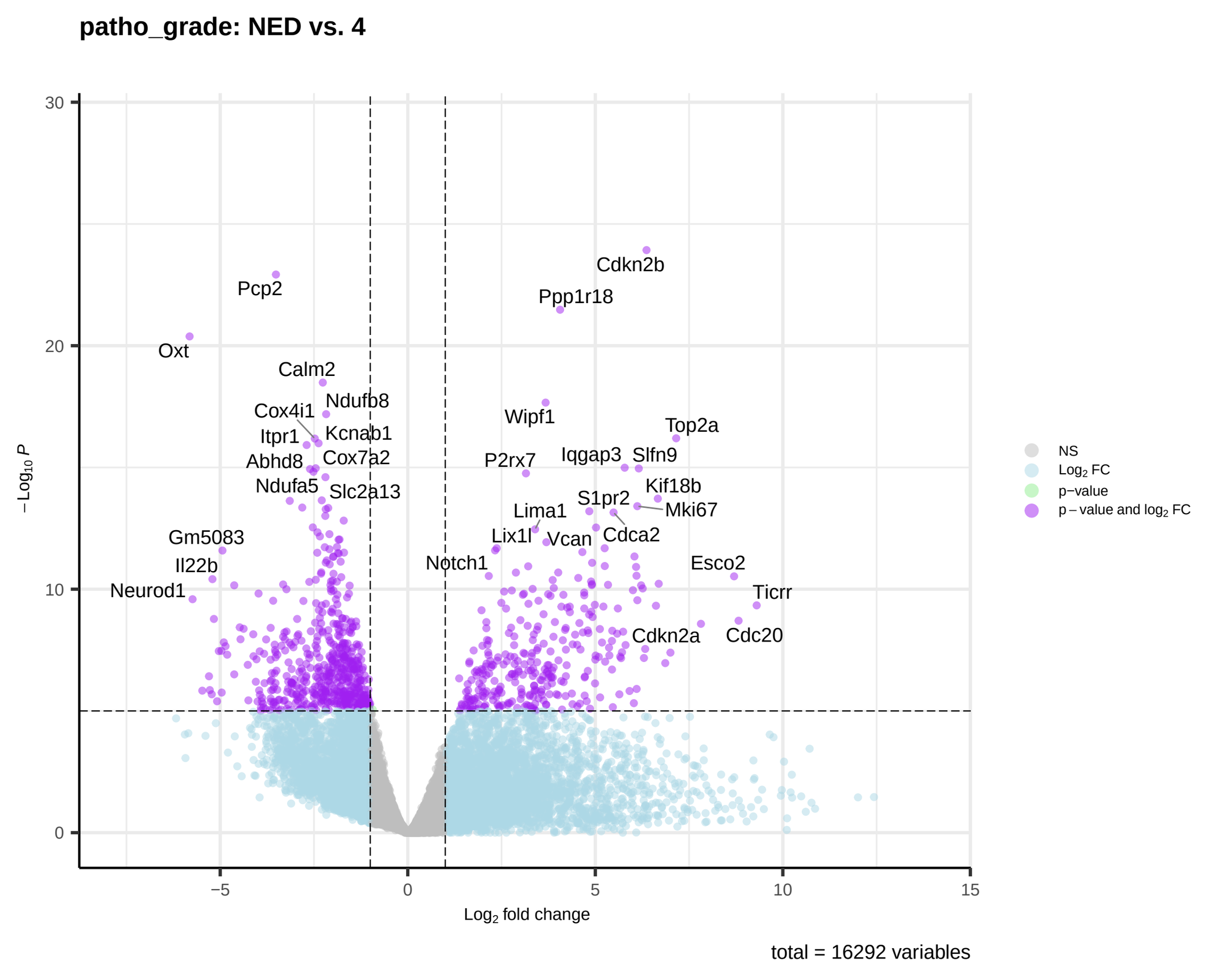

patho_grade: 4 vs. N
Clec3a
15
10
5
0
−10
−5
0
5
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 16829 variables

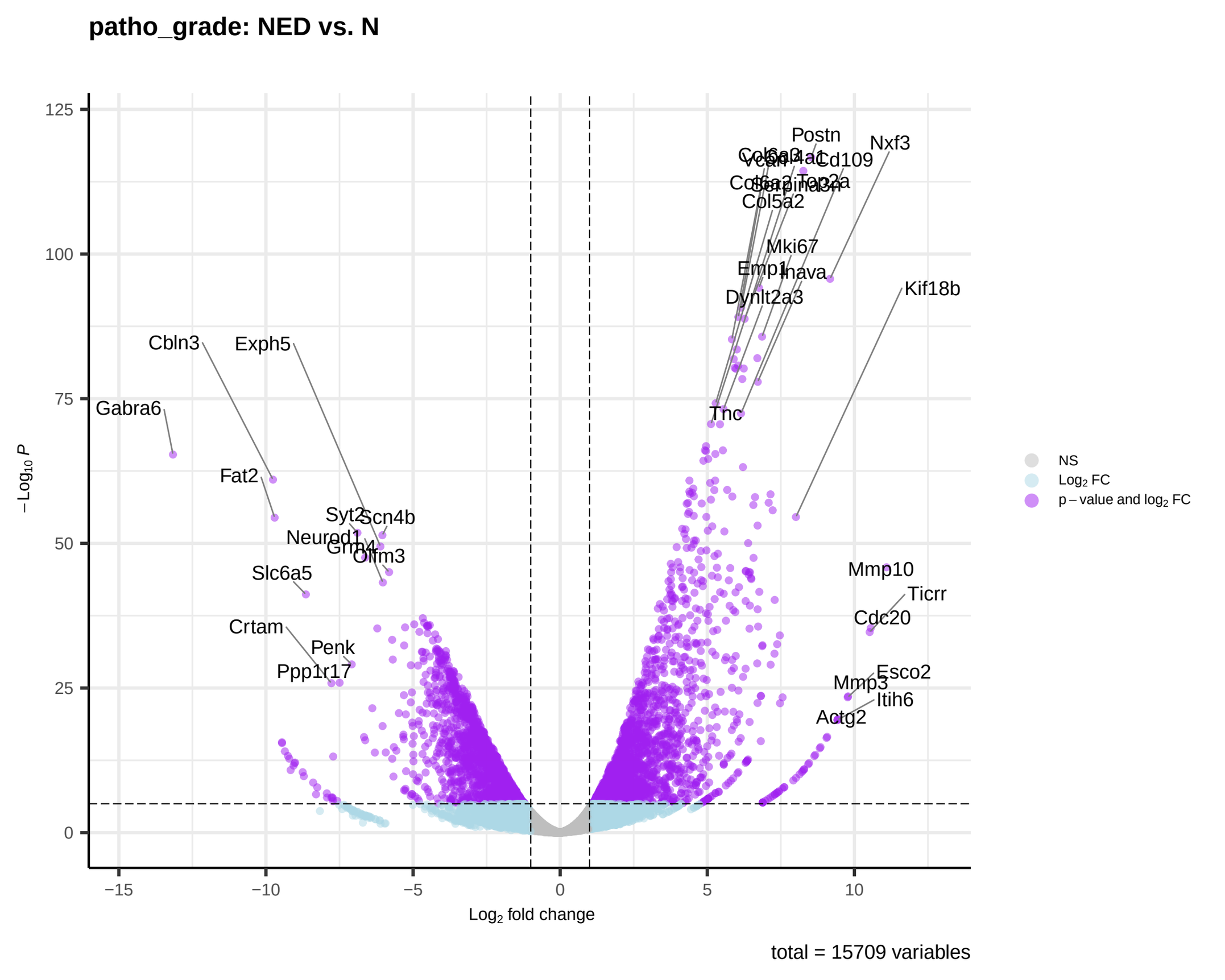

patho_grade: NED vs. 2
Gabra6
Calb2
Pmch
Barhl2
Uncx
Grm4
Atp5mj
Cox5a
Fat2
Cbln3
Cbln1
Ppp1r17
Lhx1
Lhx1os
Il22b
Gm17089
Zc3hav1
Ifi207
Ctse
Runx3
50
40
30
20
10
0
−10
−5
0
5
10
15
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 15611 variables

patho_grade: NED vs. 3

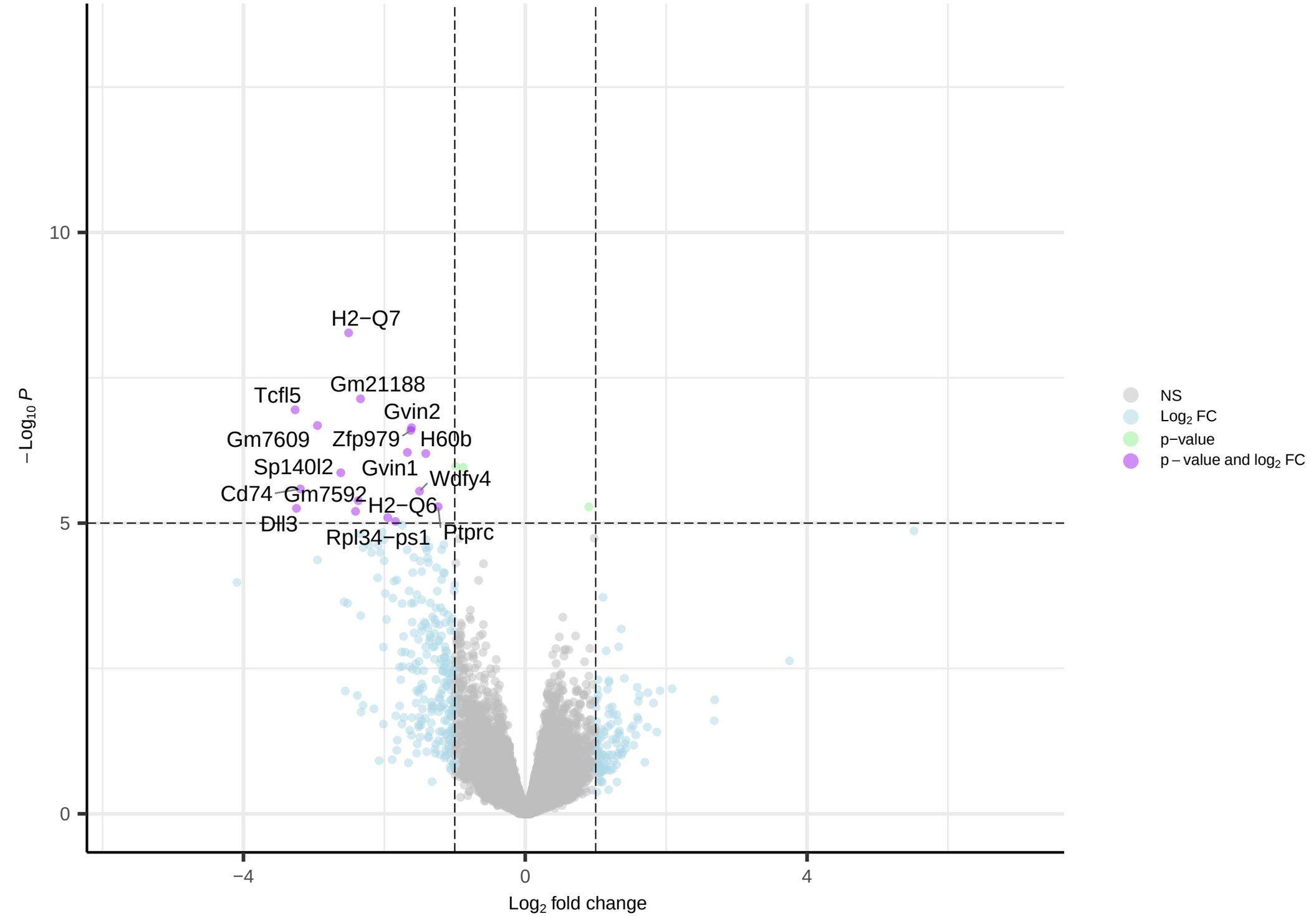


total = 15015 variables

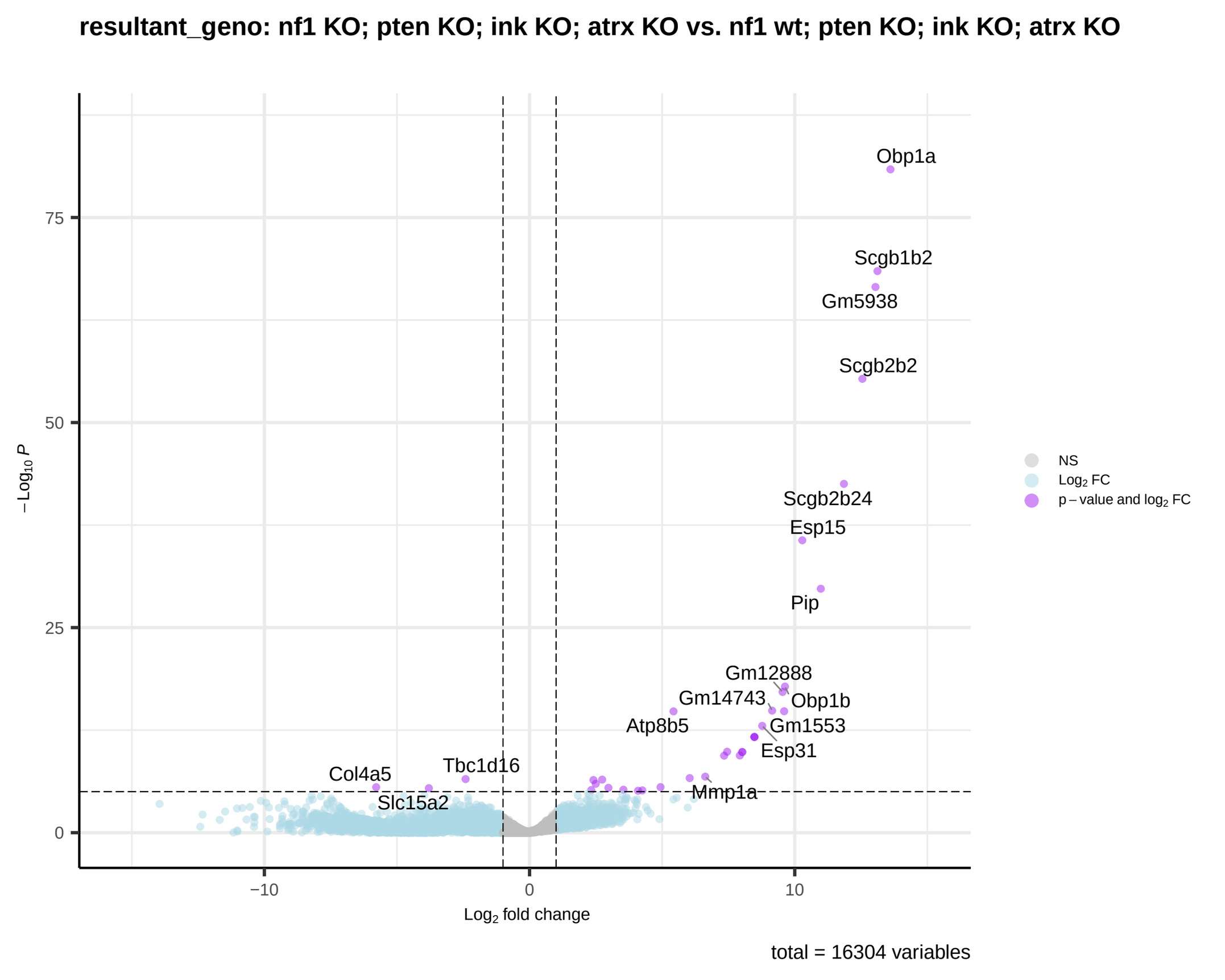

patho_grade: NED vs. 4
30
20
10
0
−Log10 P
−5
0
5
10
15
Log2 fold change
Cdkn2b
Pcp2
Ppp1r18
Oxt
Calm2
Ndufb8
Cox4i1
Wipf1
Top2a
Itpr1
Kcnab1
P2rx7
Iqgap3
Slfn9
Abhd8
Cox7a2
Kif18b
Ndufa5
Slc2a13
S1pr2
Mki67
Lima1
Gm5083
Lix1l
Vcan
Cdca2
Il22b
Notch1
Esco2
Neurod1
Ticrr
Cdkn2a
Cdc20
NS
Log2 FC
p−value
p − value and log2 FC
total = 16292 variables

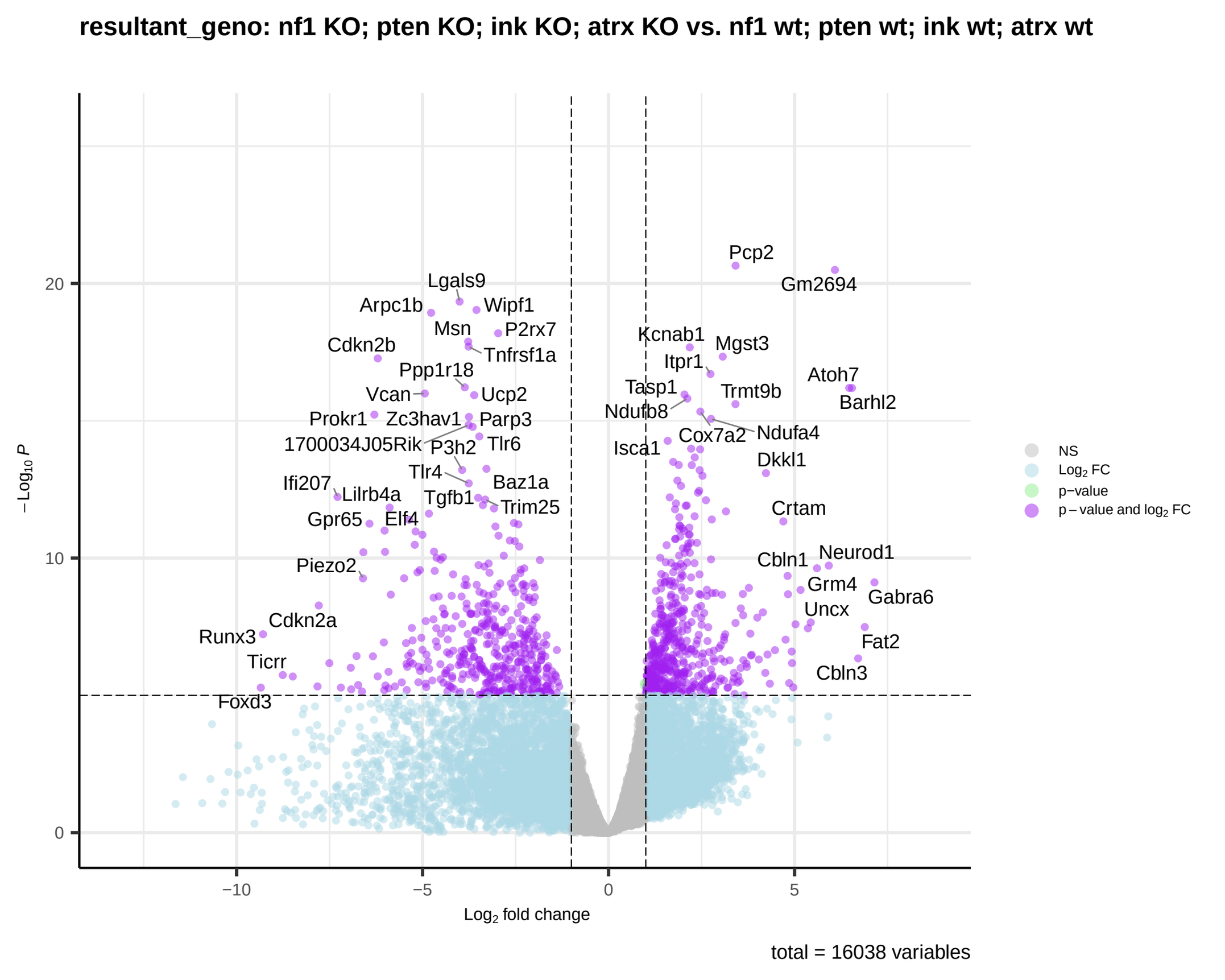

patho_grade: NED vs. N
125
100
75
50
25
0
−Log10 P
−15
−10
−5
0
5
10
Log2 fold change
Postn
Nxf3
Col6a2
Col4a1
vcan
Cd109
Col6a3
Top2a
Col5a2
Mki67
Emp1
Inava
Dynlt2a3
Kif18b
Tnc
Cbln3
Exph5
Gabra6
Fat2
Syt2
Scn4b
Neurod1
Grm4
Olfm3
Slc6a5
Crtam
Penk
Ppp1r17
Mmp10
Ticrr
Cdc20
Esco2
Mmp3
Itih6
Actg2
NS
Log2 FC
p – value and log2 FC
total = 15709 variables

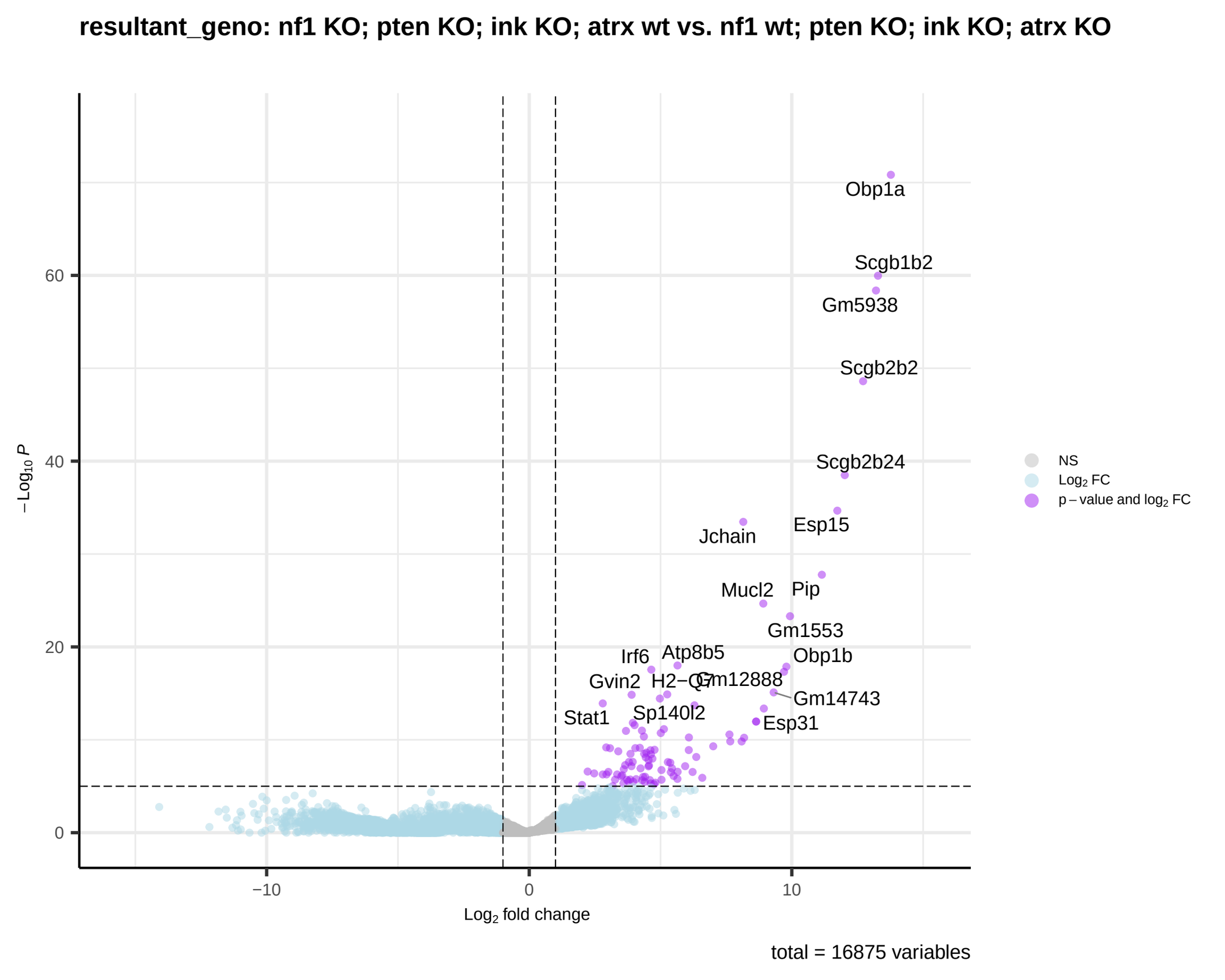
resultant_geno: nf1 KO; pten KO; ink KO; atrx KO vs. nf1 KO; pten KO; ink KO; atrx wt

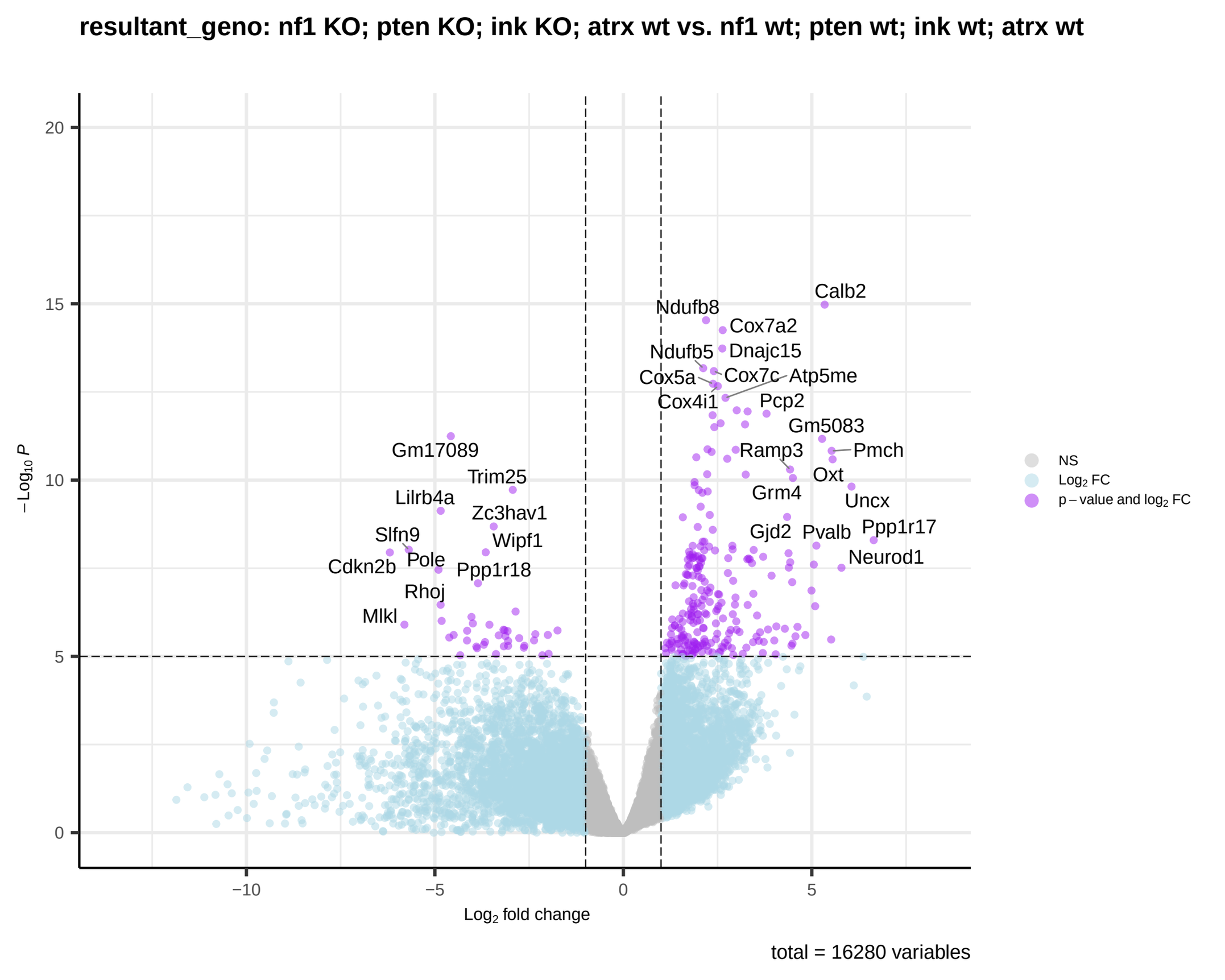


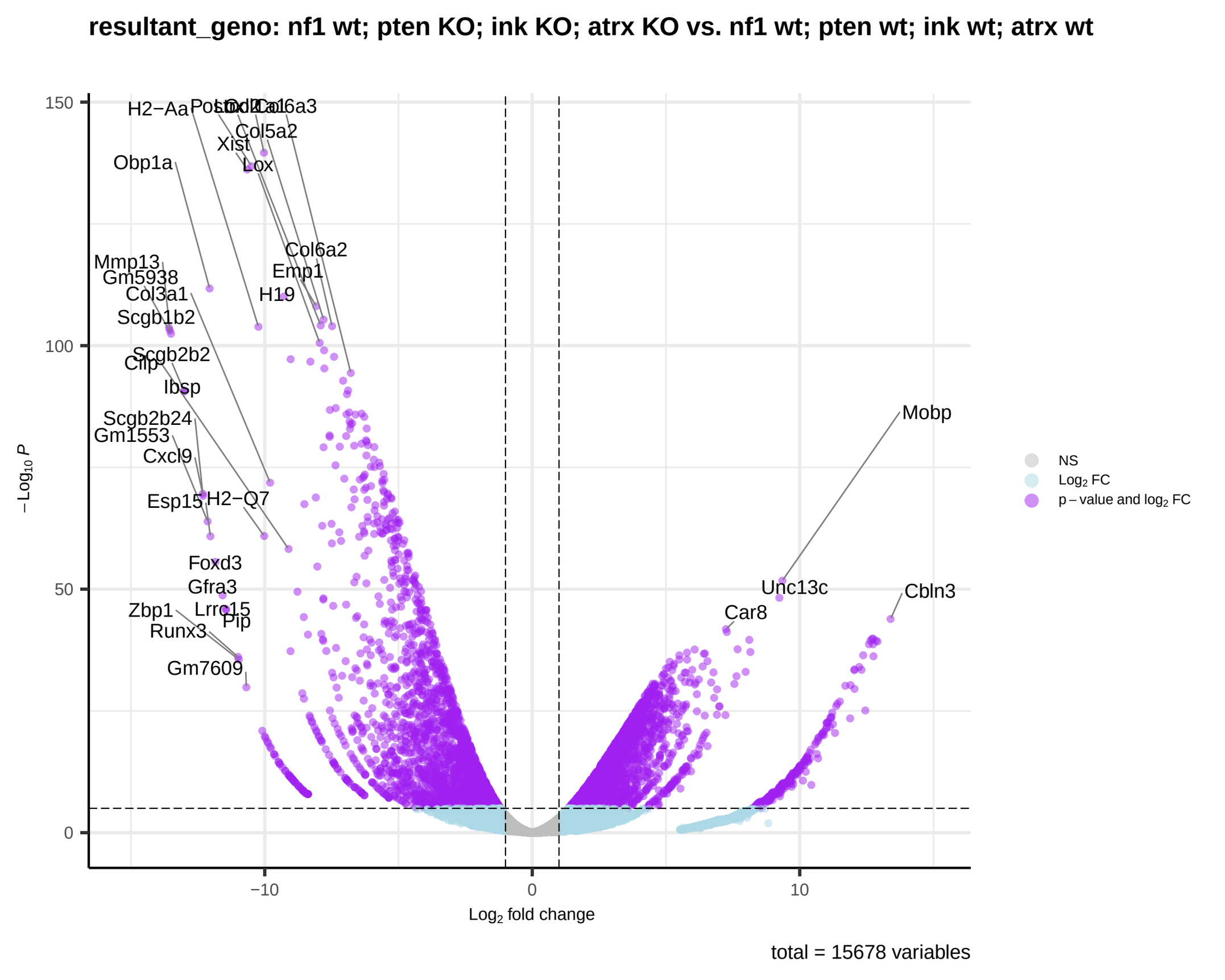
total = 14608 variables


resultant_geno: nf1 KO; pten KO; ink KO; atrx KO vs. nf1 wt; pten KO; ink KO; atrx KO
Obp1a
Scgb1b2
Gm5938
Scgb2b2
Scgb2b24
Esp15
Pip
Gm12888
Gm14743
Obp1b
Atp8b5
Gm1553
Esp31
Tbc1d16
Col4a5
Slc15a2
Mmp1a
75
50
25
0
−10
0
10
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p – value and log_2 FC
total = 16304 variables


resultant_geno: nf1 KO; pten KO; ink KO; atrx KO vs. nf1 wt; pten wt; ink wt; atrx wt
Pcp2
Gm2694
Lgals9
Arpc1b
Wipf1
Msn
P2rx7
Cdkn2b
Tnfrsf1a
Ppp1r18
Vcan
Ucp2
Prokr1
Zc3hav1
Parp3
1700034J05Rik
P3h2
Tlr6
Tlr4
Baz1a
Ifi207
Lilrb4a
Tgfb1
Trim25
Gpr65
Elf4
Piezo2
Cdkn2a
Runx3
Ticrr
Foxd3
Kcnab1
Mgst3
Itpr1
Atoh7
Tasp1
Trmt9b
Barhl2
Ndufb8
Cox7a2
Ndufa4
Isca1
Dkkl1
Crtam
Cbln1
Neurod1
Grm4
Gabra6
Uncx
Fat2
Cbln3
20
10
0
−10
−5
0
5
$-\text{Log}_{10}\,P$
Log_2 fold change
NS
Log_2 FC
p−value
p – value and $\log_2$ FC
total = 16038 variables


resultant_geno: nf1 KO; pten KO; ink KO; atrx wt vs. nf1 wt; pten KO; ink KO; atrx KO
Obp1a
Scgb1b2
Gm5938
Scgb2b2
Scgb2b24
Esp15
Jchain
Mucl2
Pip
Gm1553
Obp1b
Irf6
Atp8b5
Gvin2
H2−Q7
Gm12888
Gm14743
Stat1
Sp140l2
Esp31
60
40
20
0
−10
0
10
−Log10 P
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 16875 variables


resultant_geno: nf1 KO; pten KO; ink KO; atrx wt vs. nf1 wt; pten wt; ink wt; atrx wt
20
15
10
5
0
−Log10 P
−10
−5
0
5
Log2 fold change
Calb2
Ndufb8
Cox7a2
Ndufb5
Dnajc15
Cox5a
Cox7c
Atp5me
Cox4i1
Pcp2
Gm5083
Gm17089
Ramp3
Pmch
Trim25
Oxt
Lilrb4a
Grm4
Uncx
Zc3hav1
Slfn9
Gjd2
Pvalb
Ppp1r17
Wipf1
Pole
Neurod1
Cdkn2b
Ppp1r18
Rhoj
Mlkl
NS
Log2 FC
p – value and log2 FC
total = 16280 variables


resultant_geno: nf1 wt; pten KO; ink KO; atrx KO vs. nf1 wt; pten wt; ink wt; atrx wt
150
100
50
0
−Log10 P
H2−Aa
Col16a3
Col5a2
Xist
Lox
Obp1a
Col6a2
Mmp13
Emp1
Gm5938
Col3a1
H19
Scgb1b2
Scgb2b2
Clip
Ibsp
Scgb2b24
Gm1553
Cxcl9
Esp15
H2−Q7
Foxd3
Gfra3
Zbp1
Lrrc15
Pip
Runx3
Gm7609
Mobp
Unc13c
Cbln3
Car8
−10
0
10
Log2 fold change
NS
Log2 FC
p − value and log2 FC
total = 15678 variables