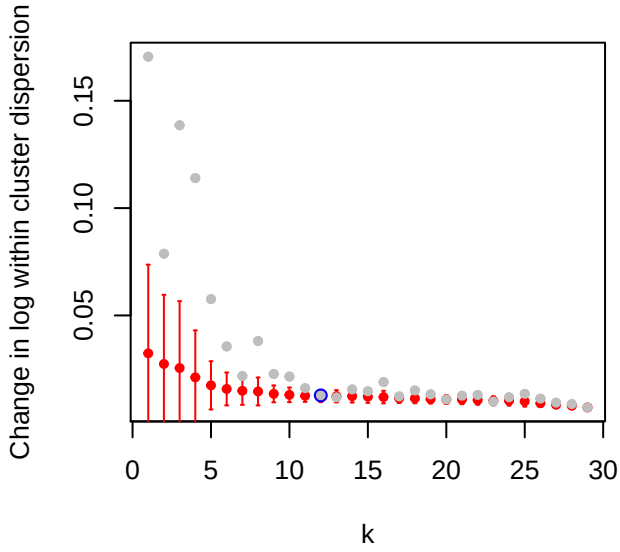
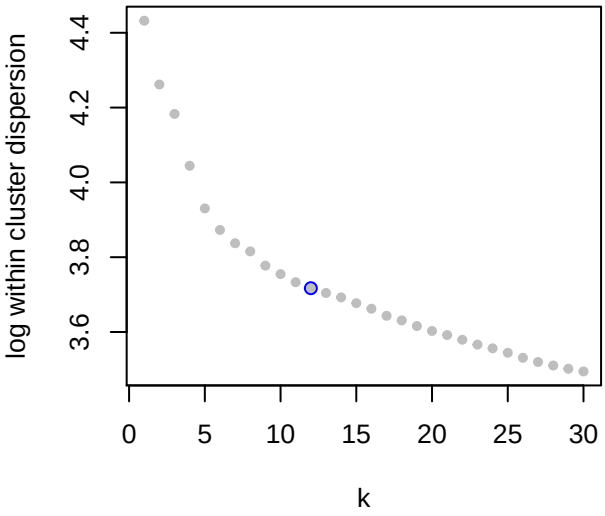
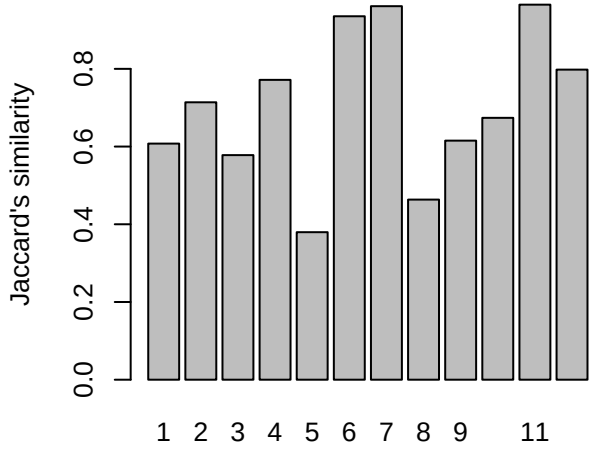
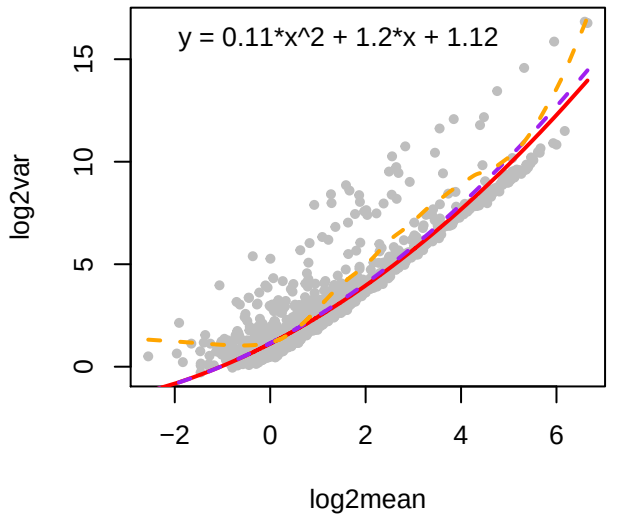
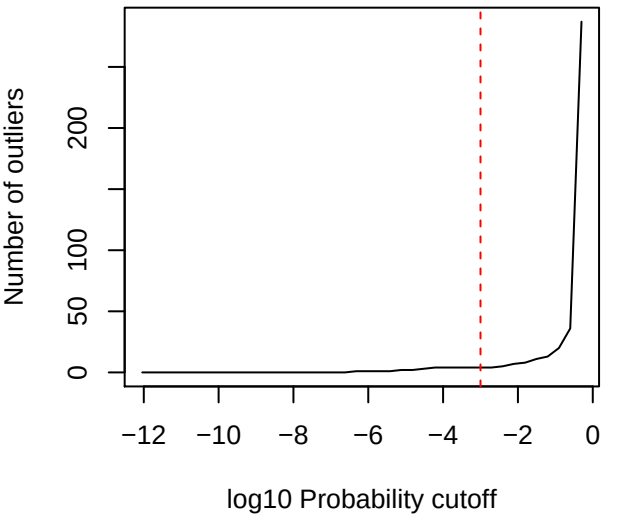
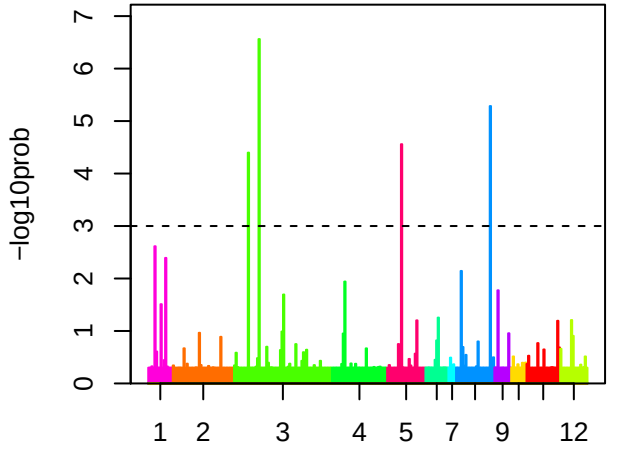

Change in log within cluster dispersion
0.05
0.10
0.15
0
5
10
15
20
25
30
k

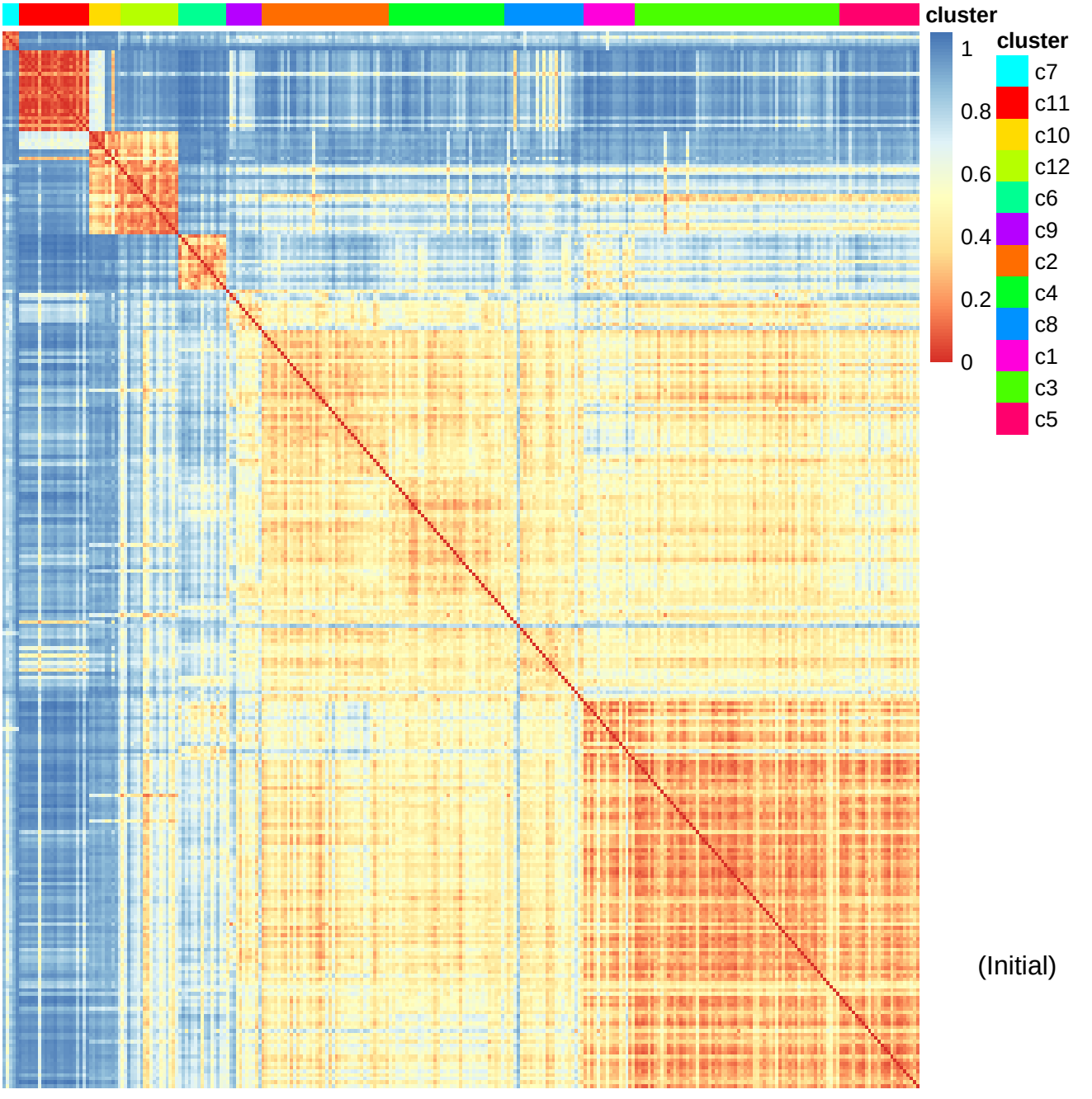

log within cluster dispersion
3.6
3.8
4.0
4.2
4.4
0
5
10
15
20
25
30
k

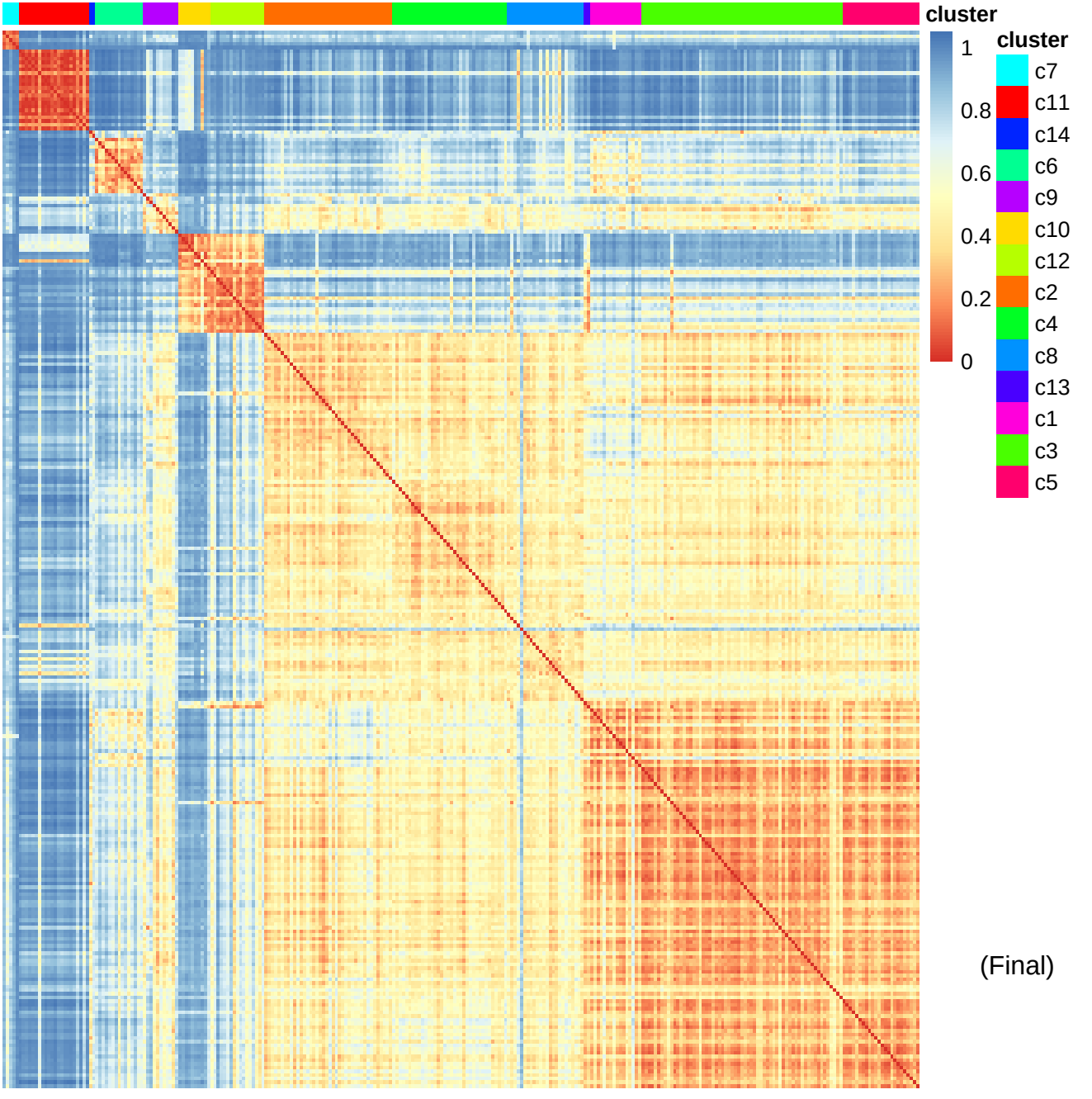

Jaccard's similarity
0.0
0.2
0.4
0.6
0.8
1
2
3
4
5
6
7
8
9
11

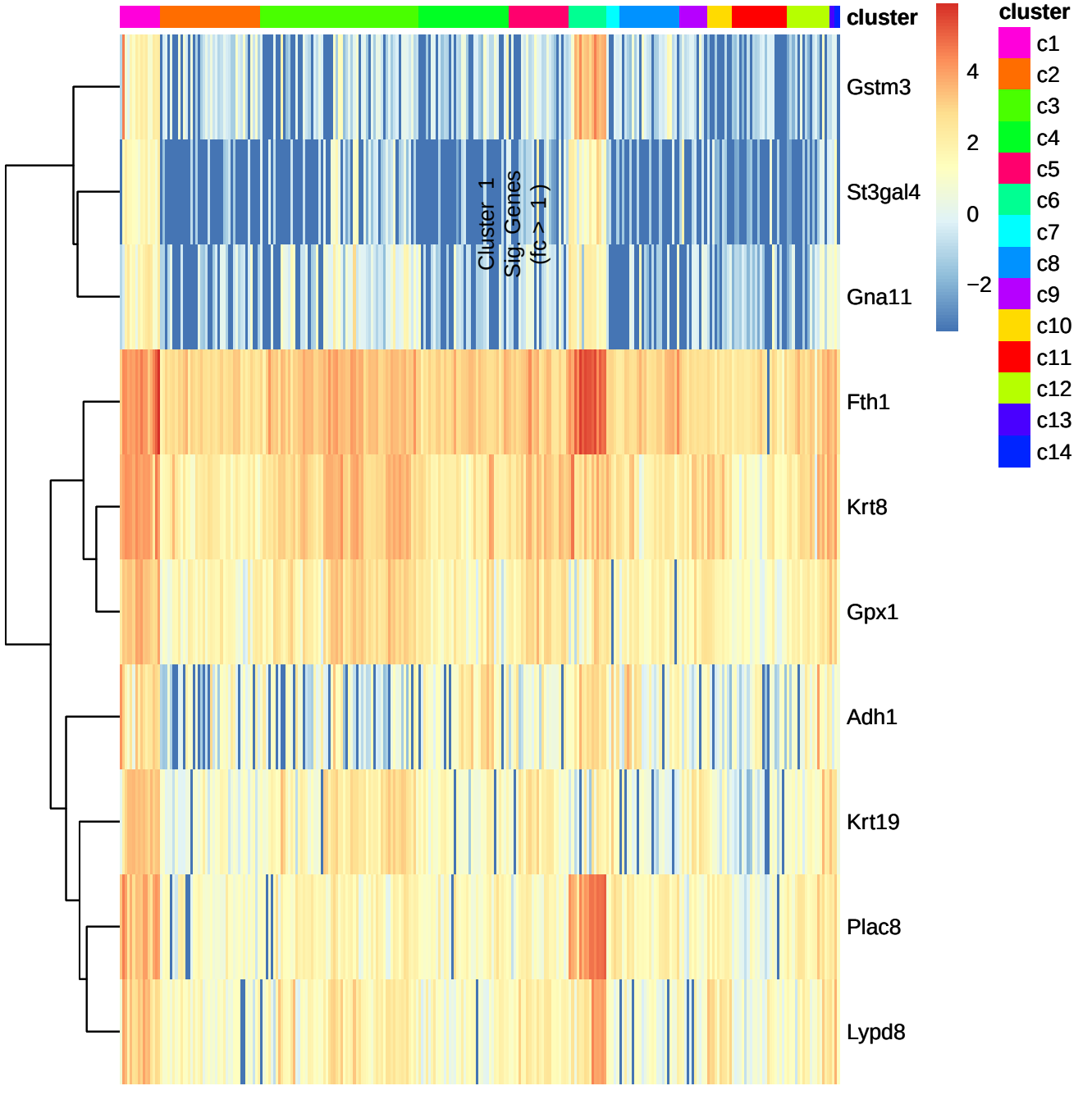

y = 0.11*x^2 + 1.2*x + 1.12
log2var
log2mean
0
5
10
15
−2
0
2
4
6

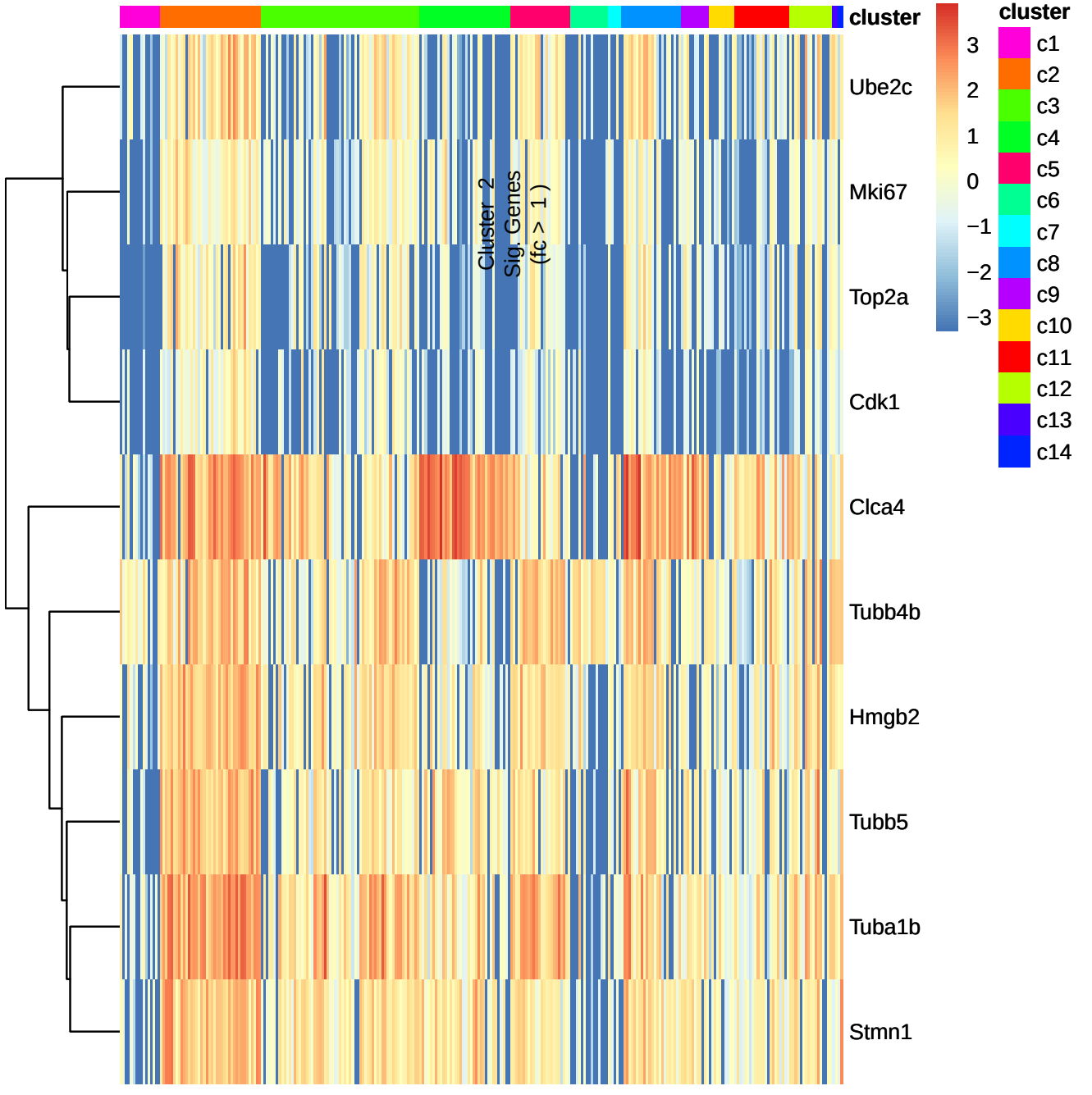

Number of outliers
log10 Probability cutoff
0
50
100
200
−12
−10
−8
−6
−4
−2
0

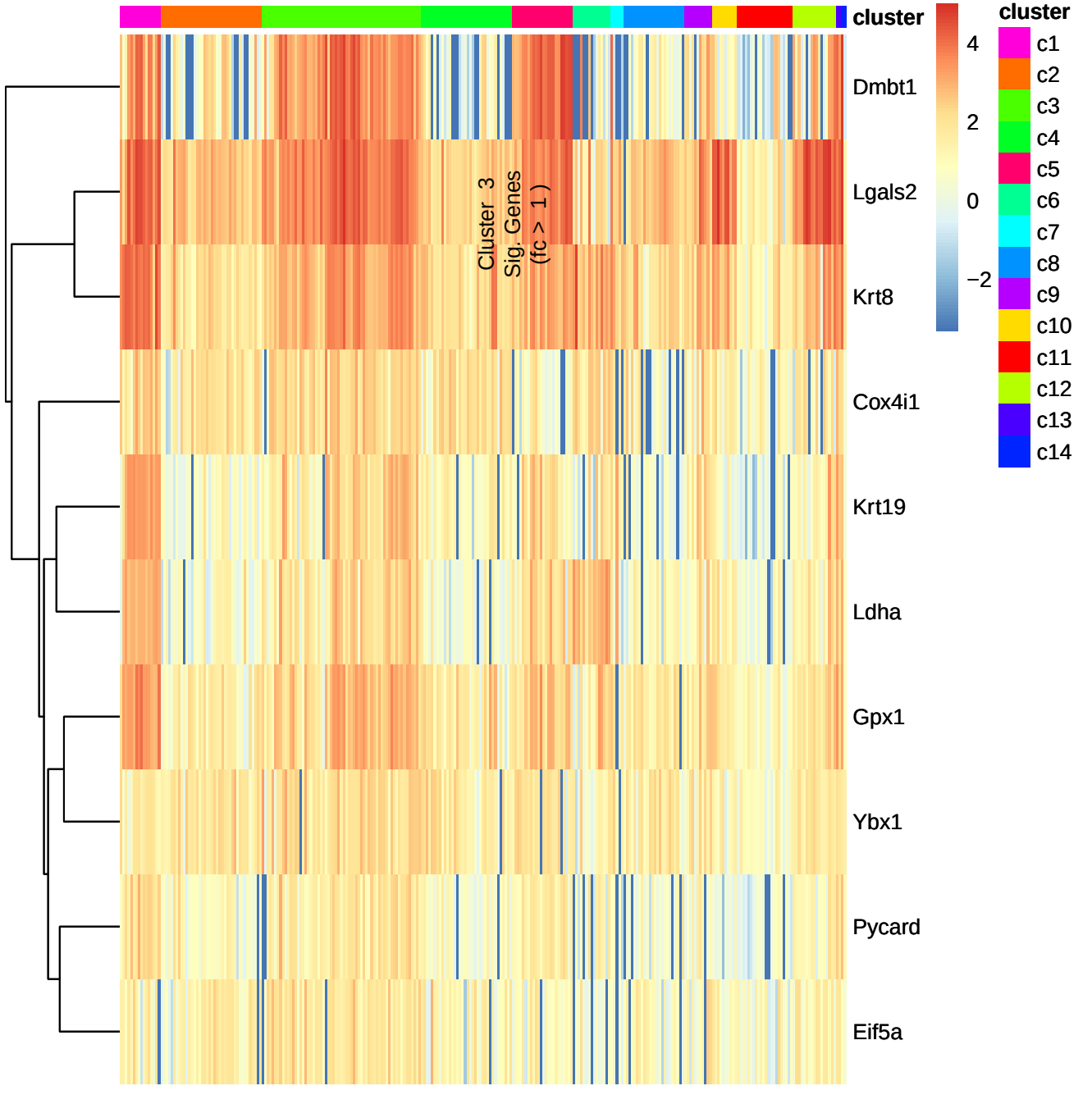

−log10prob
0
1
2
3
4
5
6
7
1
2
3
4
5
7
9
12

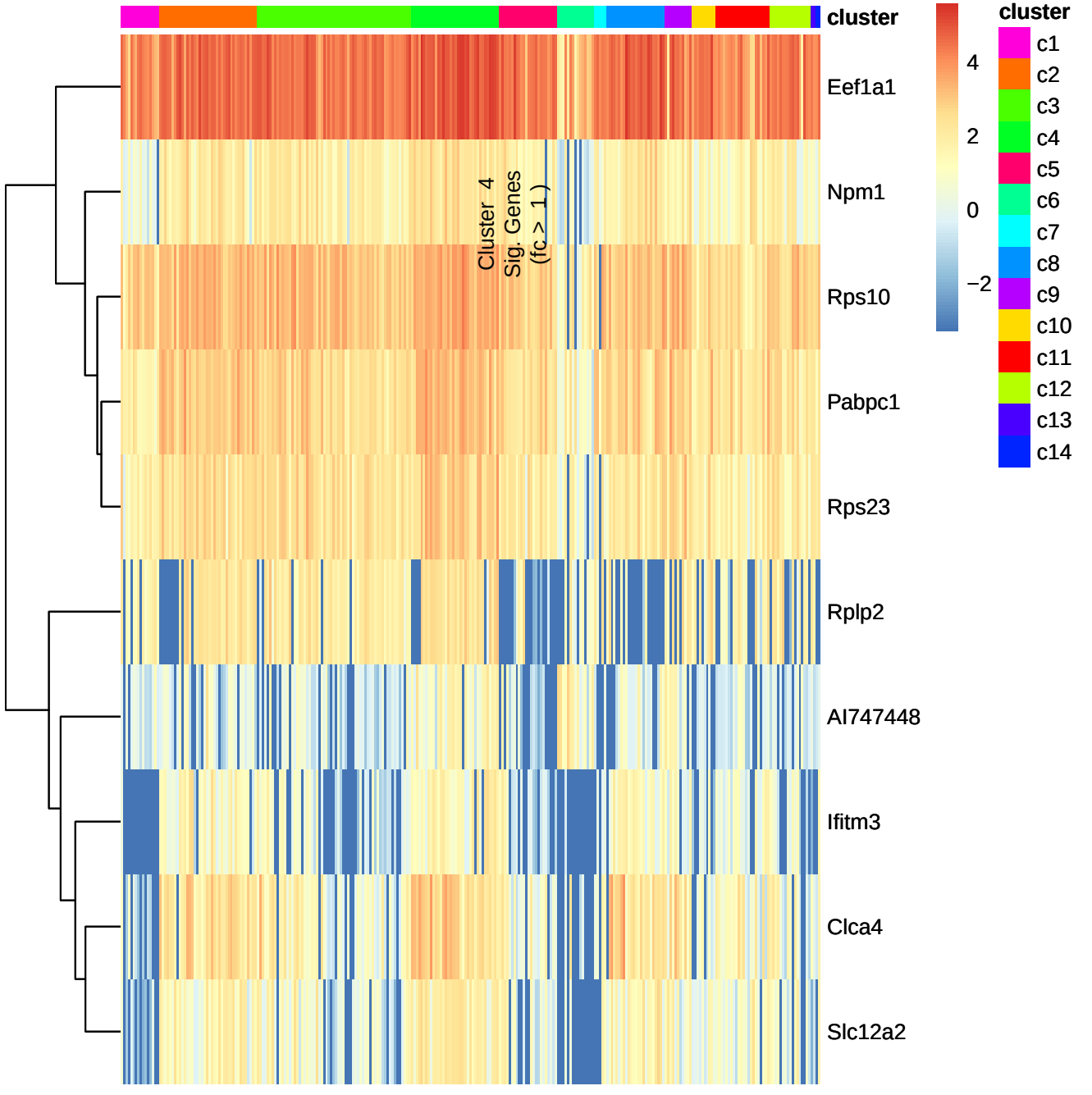

cluster
1
0.8
0.6
0.4
0.2
0
cluster
c7
c11
c10
c12
c6
c9
c2
c4
c8
c1
c3
c5
(Initial)

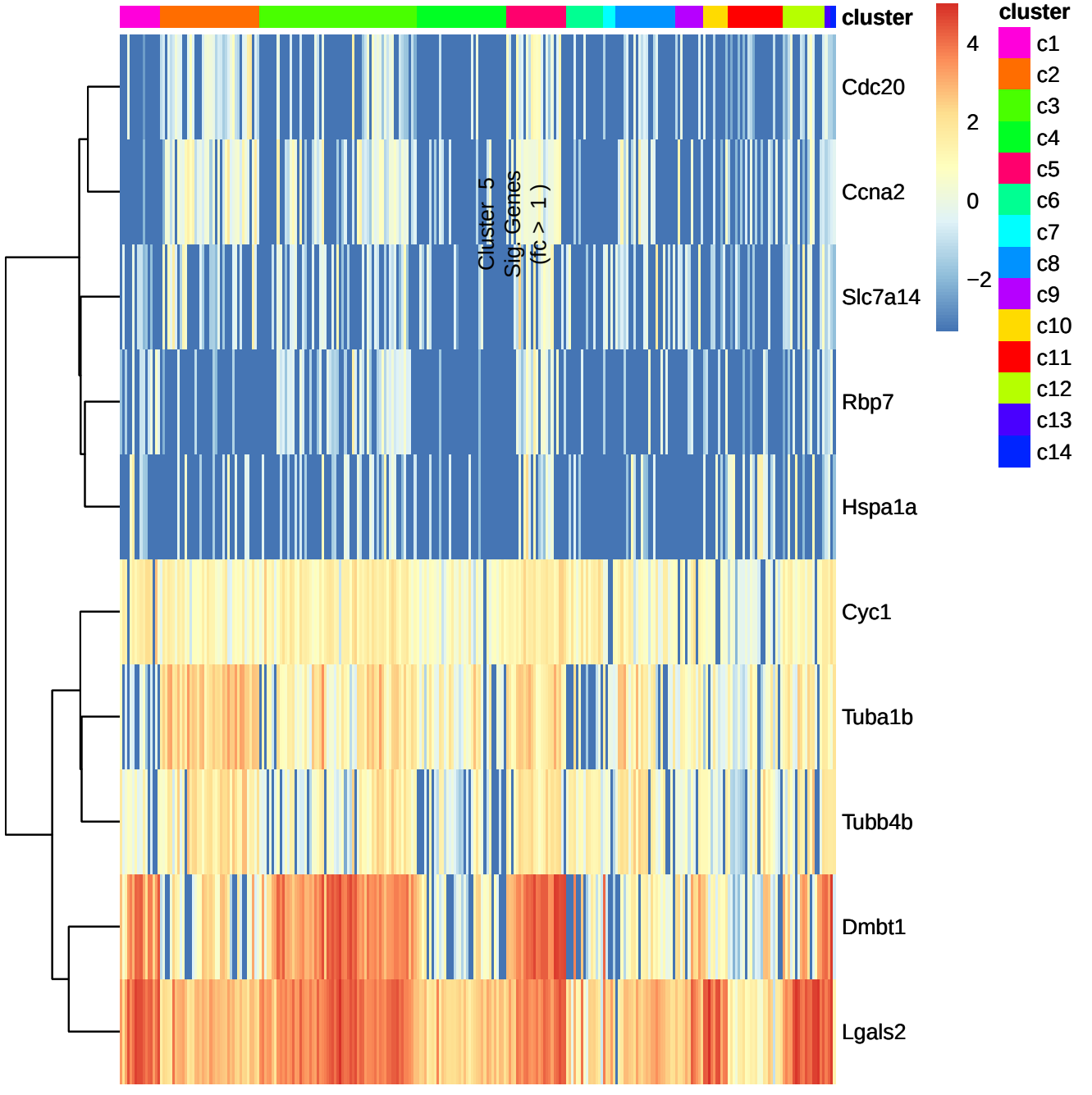

cluster
1
0.8
0.6
0.4
0.2
0
cluster
c7
c11
c14
c6
c9
c10
c12
c2
c4
c8
c13
c1
c3
c5
(Final)

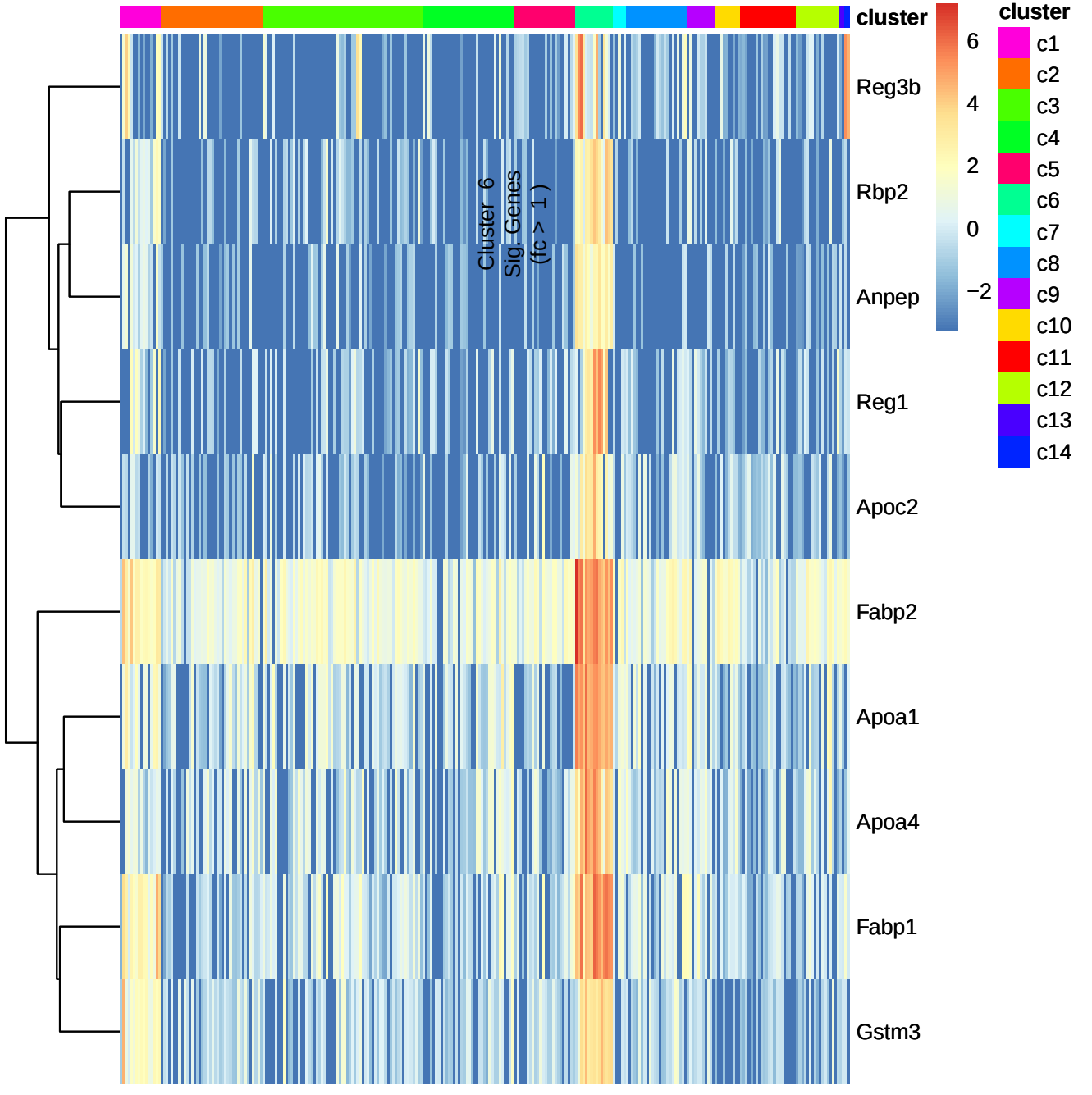

cluster
Gstm3
St3gal4
Gna11
Fth1
Krt8
Gpx1
Adh1
Krt19
Plac8
Lypd8
Cluster 1
Sig. Genes
(fc > 1)
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14

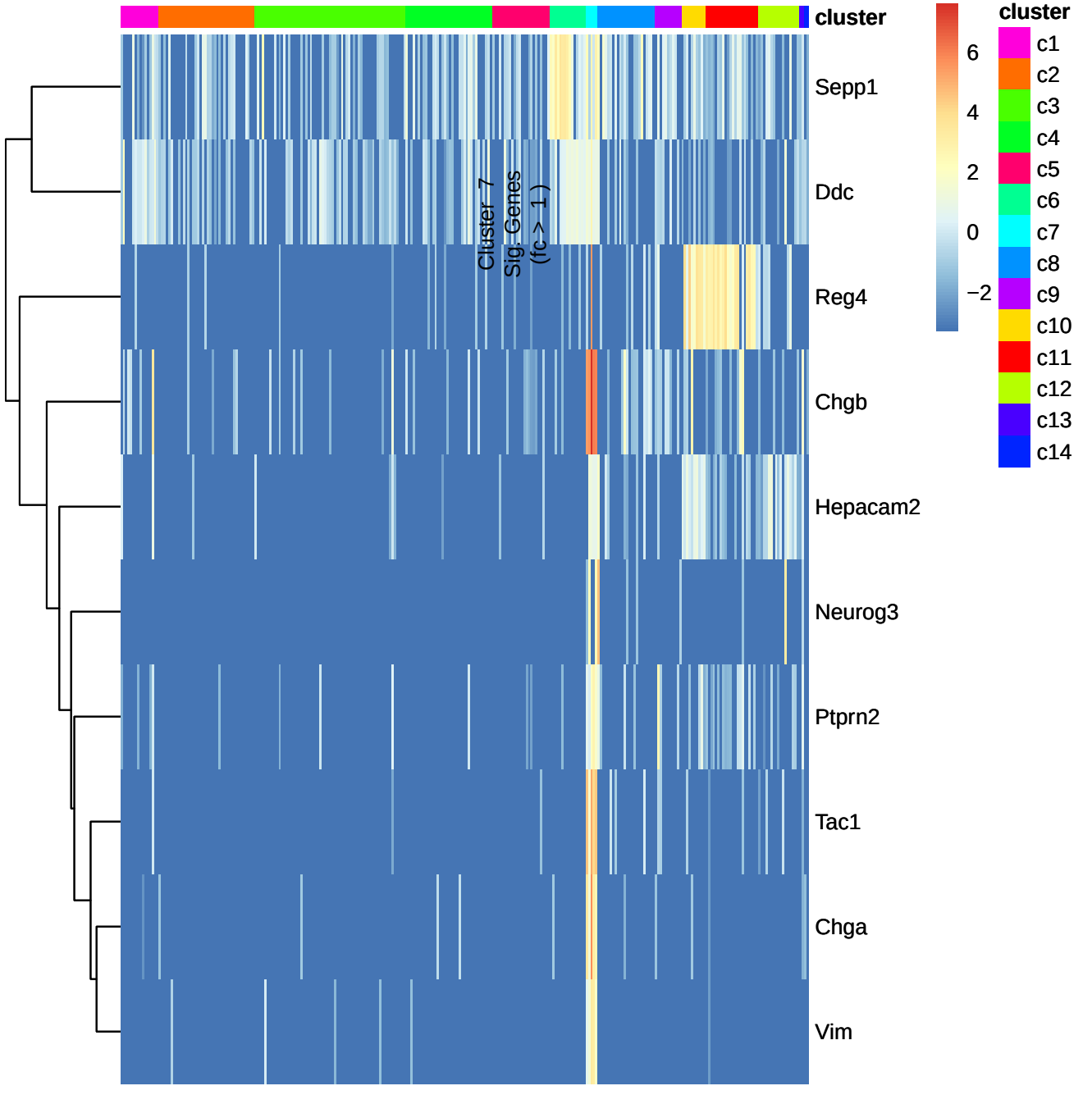

cluster
Ube2c
Mki67
Top2a
Cdk1
Clca4
Tubb4b
Hmgb2
Tubb5
Tuba1b
Stmn1
Cluster 2
Sig. Genes
(fc > 1)
3
2
1
0
−1
−2
−3
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14

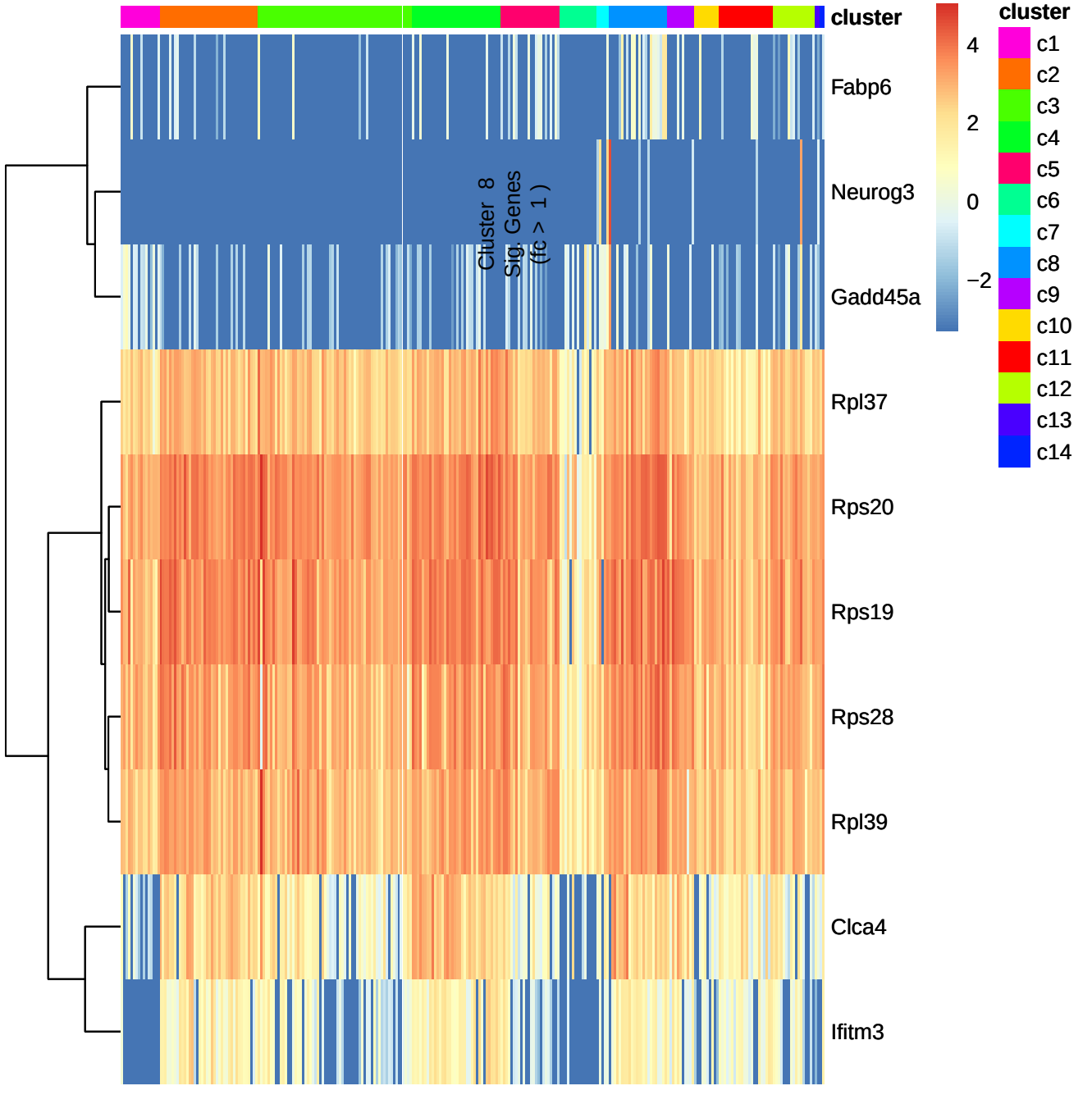

cluster
Dmbt1
Lgals2
Krt8
Cox4i1
Krt19
Ldha
Gpx1
Ybx1
Pycard
Eif5a
Cluster 3
Sig. Genes
(fc > 1)
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14

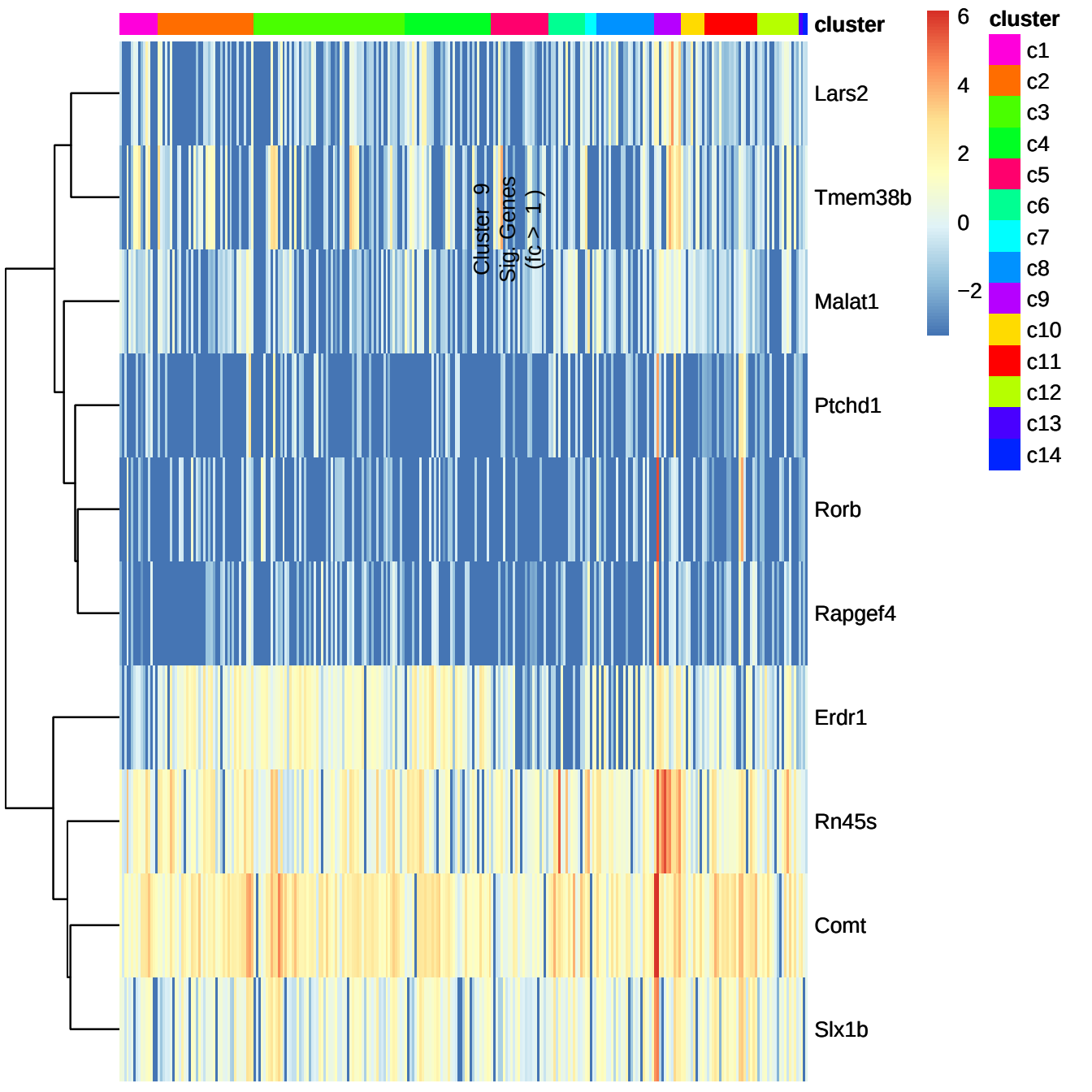

cluster
Eef1a1
Npm1
Rps10
Pabpc1
Rps23
Rplp2
AI747448
Ifitm3
Clca4
Slc12a2
Cluster 4
Sig. Genes
(fc > 1)
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14

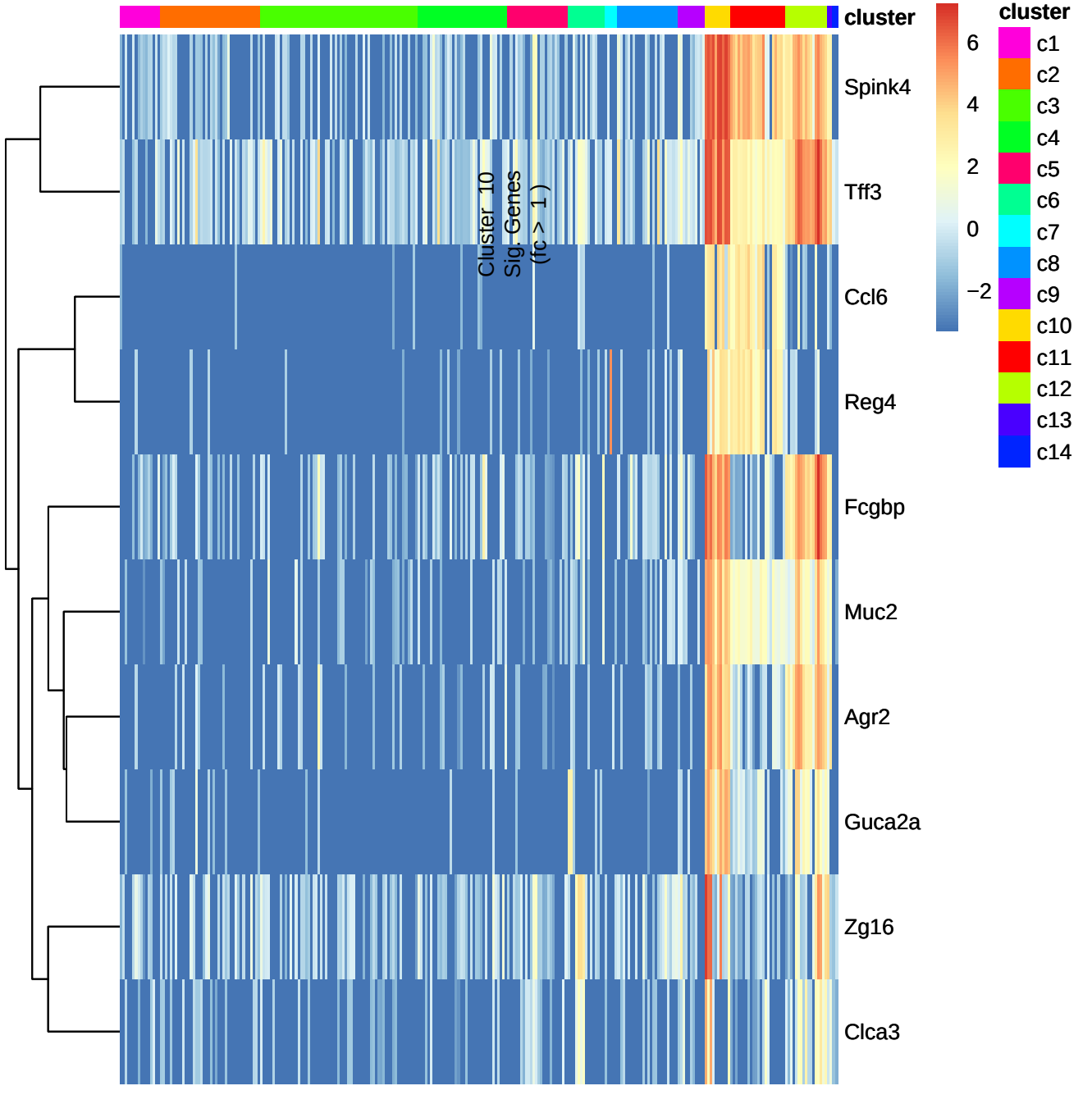

cluster
Cdc20
Ccna2
Slc7a14
Rbp7
Hspa1a
Cyc1
Tuba1b
Tubb4b
Dmbt1
Lgals2
Cluster 5
Sig. Genes
(fc > 1)
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14

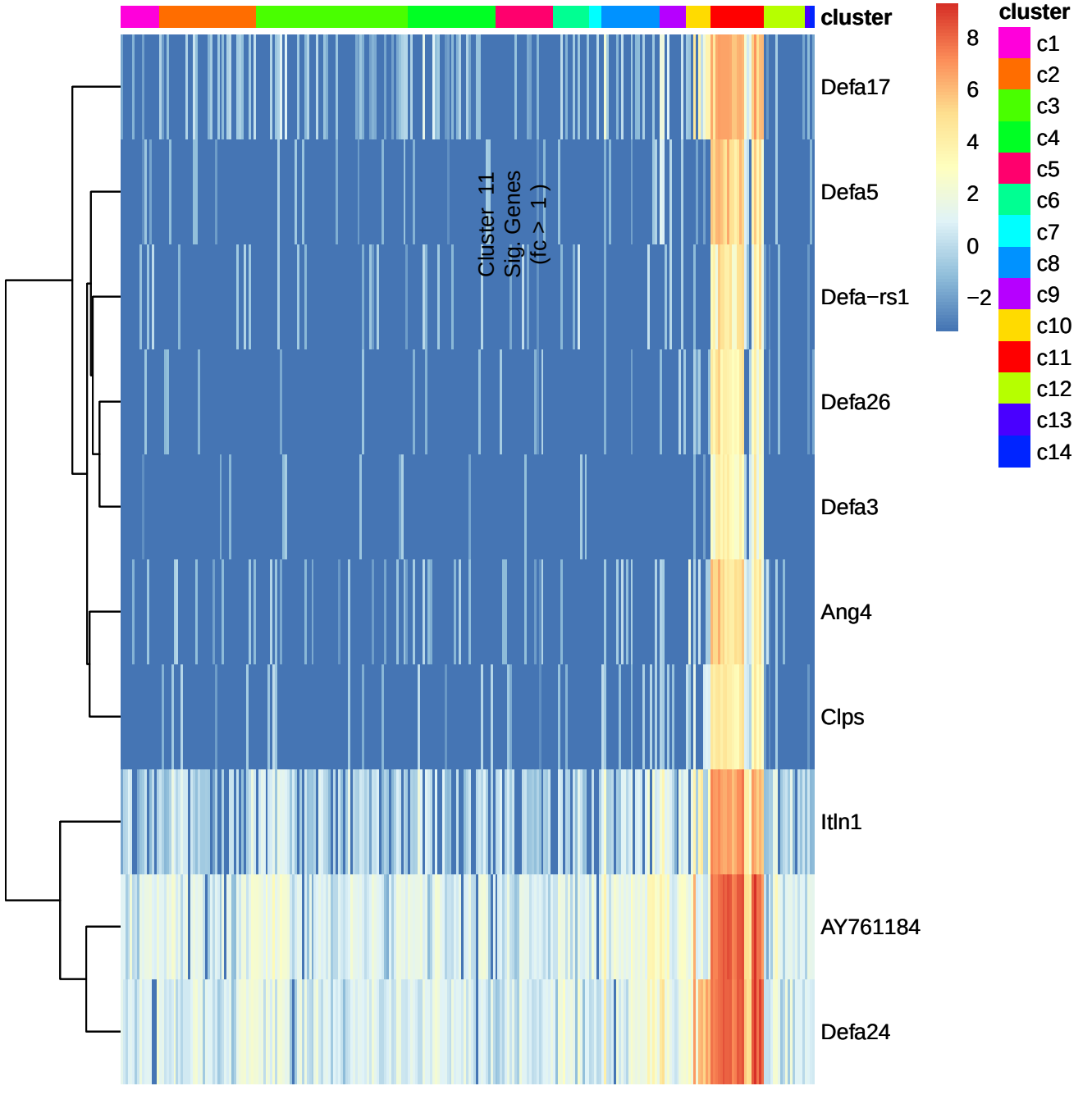

cluster
Reg3b
Rbp2
Anpep
Reg1
Apoc2
Fabp2
Apoa1
Apoa4
Fabp1
Gstm3
Cluster 6
Sig. Genes
(fc > 1)
6
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14

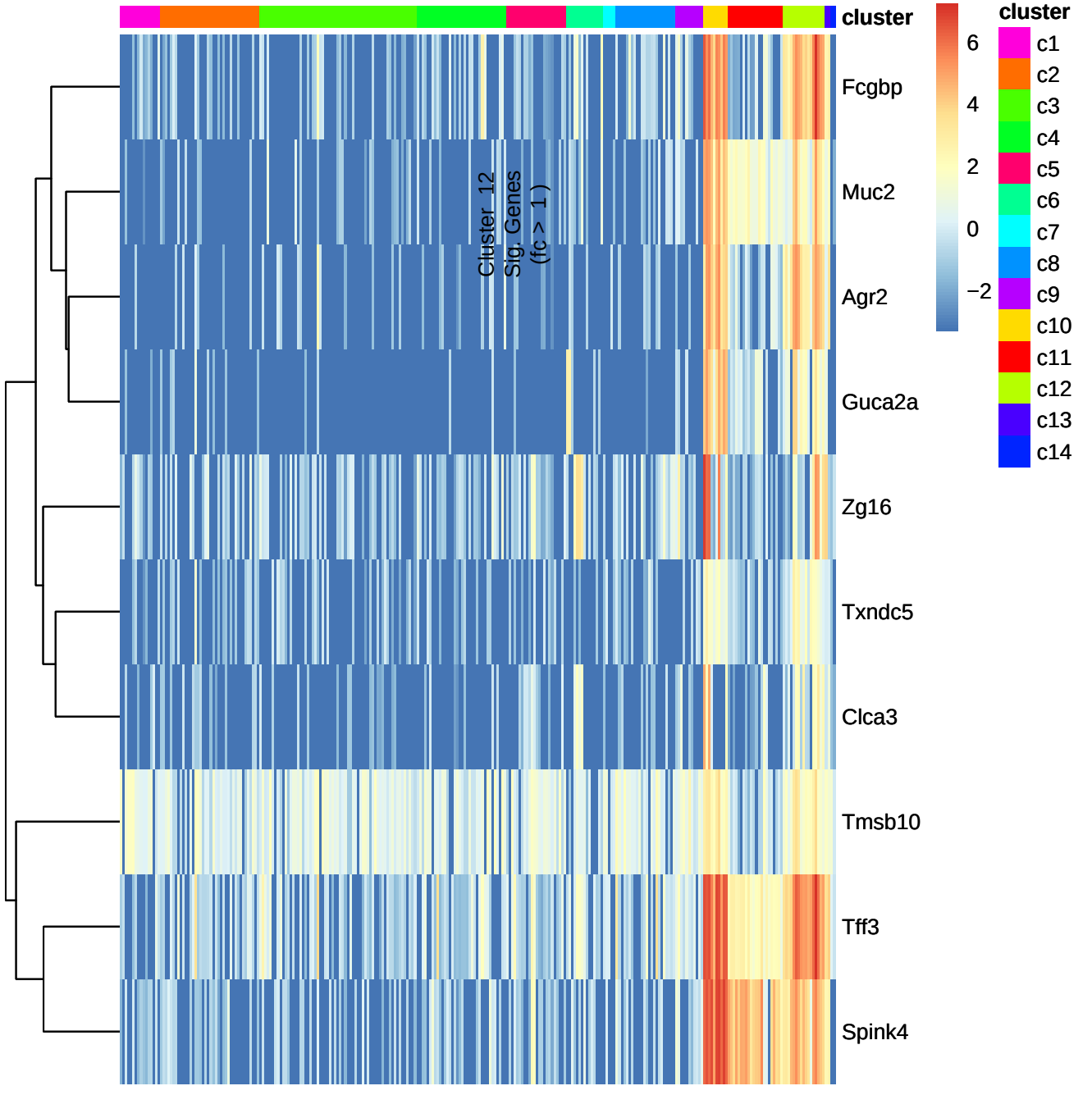

cluster
Sepp1
Ddc
Reg4
Chgb
Hepacam2
Neurog3
Ptprn2
Tac1
Chga
Vim
Cluster 7
Sig. Genes
(fc > 1)
6
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14

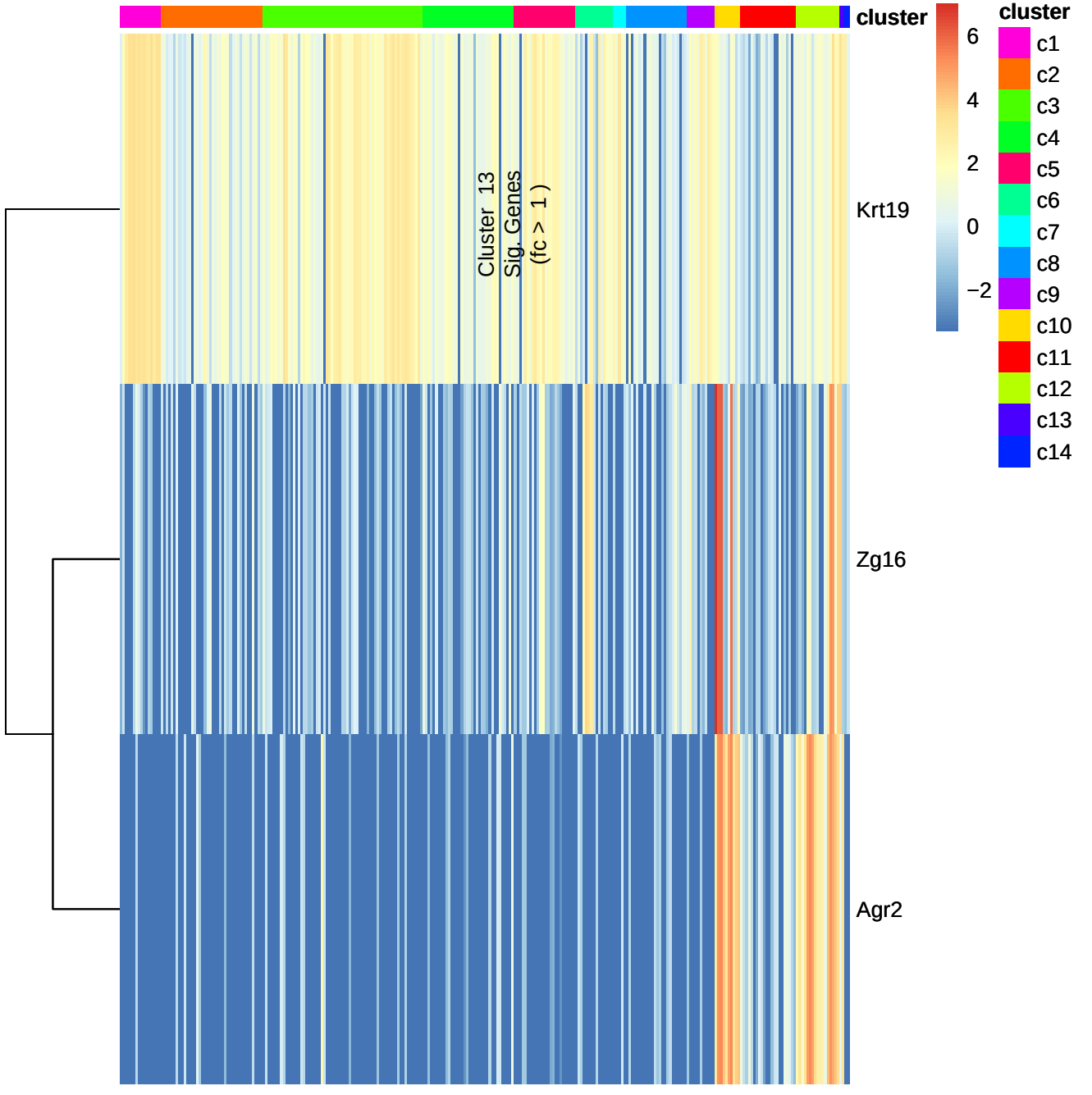

cluster
Fabp6
Neurog3
Gadd45a
Rpl37
Rps20
Rps19
Rps28
Rpl39
Clca4
Ifitm3
Cluster 8
Sig. Genes
(fc > 1)
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14

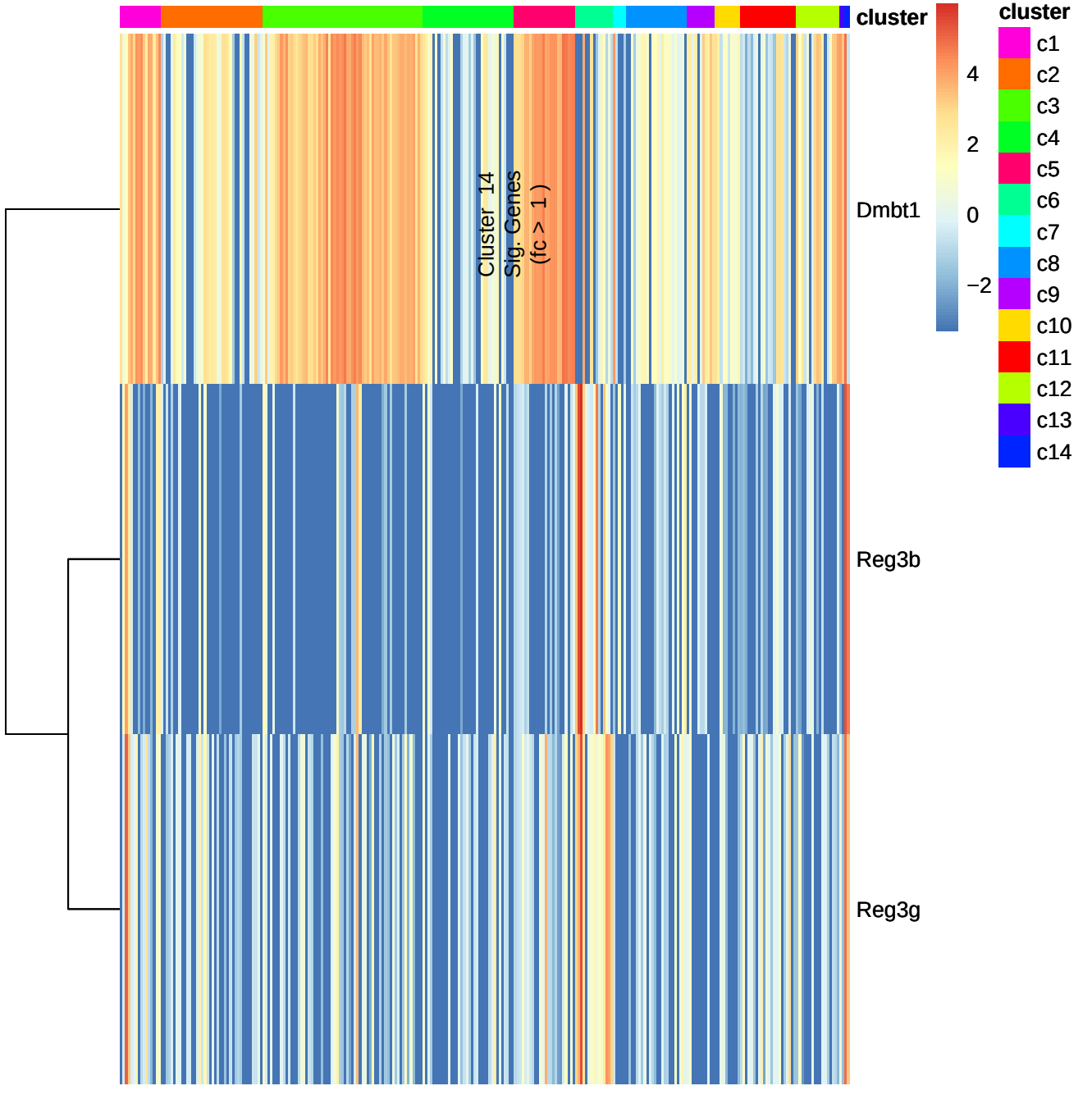

cluster
Lars2
Tmem38b
Malat1
Ptchd1
Rorb
Rapgef4
Erdr1
Rn45s
Comt
Slx1b
Cluster 9
Sig. Genes
(fc > 1)
6
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14


cluster
Spink4
Tff3
Ccl6
Reg4
Fcgbp
Muc2
Agr2
Guca2a
Zg16
Clca3
Cluster 10
Sig. Genes
(fc > 1)
6
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14


cluster
Defa17
Defa5
Defa−rs1
Defa26
Defa3
Ang4
Clps
Itln1
AY761184
Defa24
Cluster 11
Sig. Genes
(fc > 1)
8
6
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14


cluster
Fcgbp
Muc2
Agr2
Guca2a
Zg16
Txndc5
Clca3
Tmsb10
Tff3
Spink4
Cluster 12
Sig. Genes
(fc > 1)
6
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14


cluster
Cluster 13
Sig. Genes
(fc > 1)
Krt19
Zg16
Agr2
6
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14


cluster
Dmbt1
Reg3b
Reg3g
Cluster 14
Sig. Genes
(fc > 1)
4
2
0
−2
cluster
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14