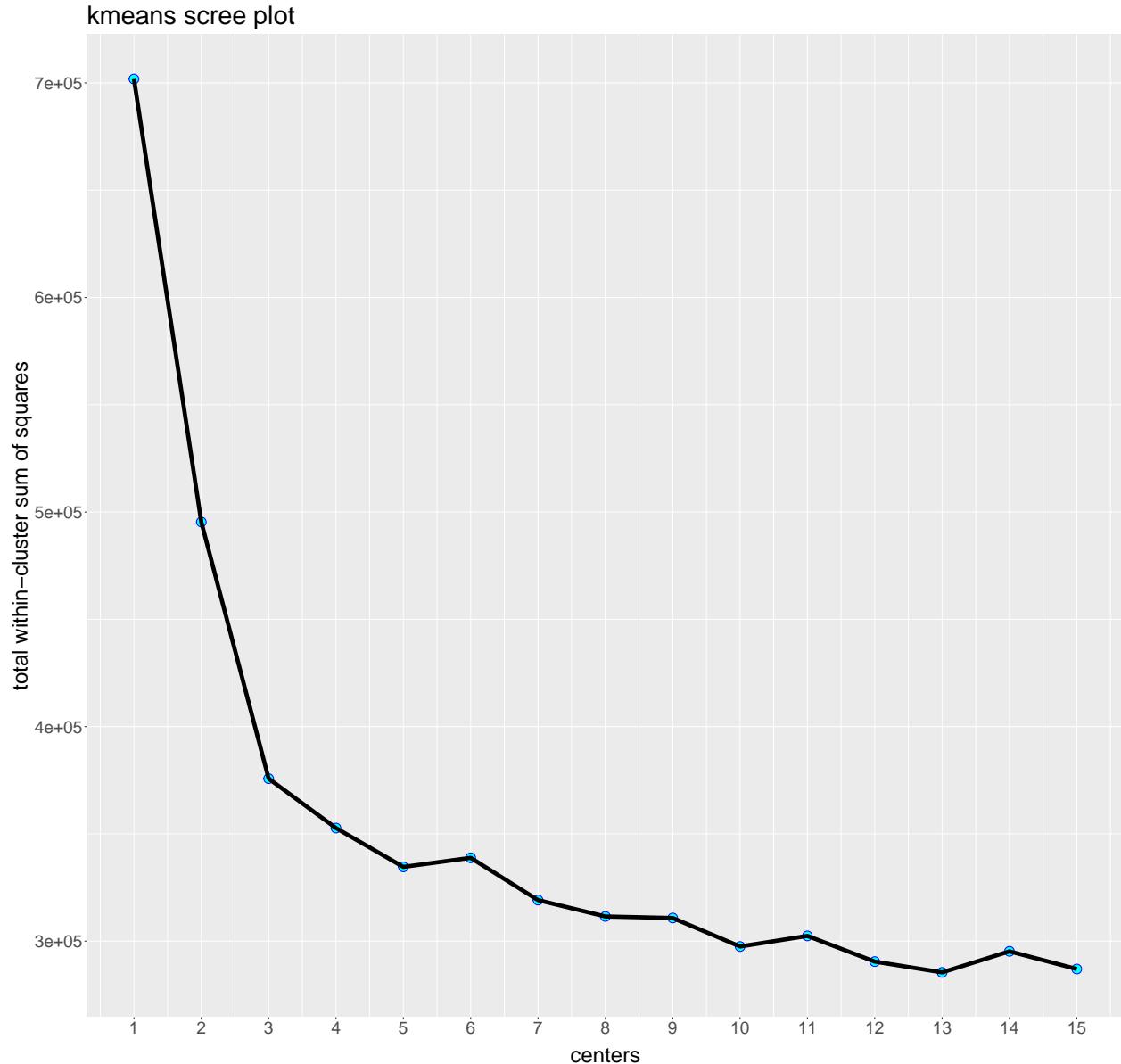
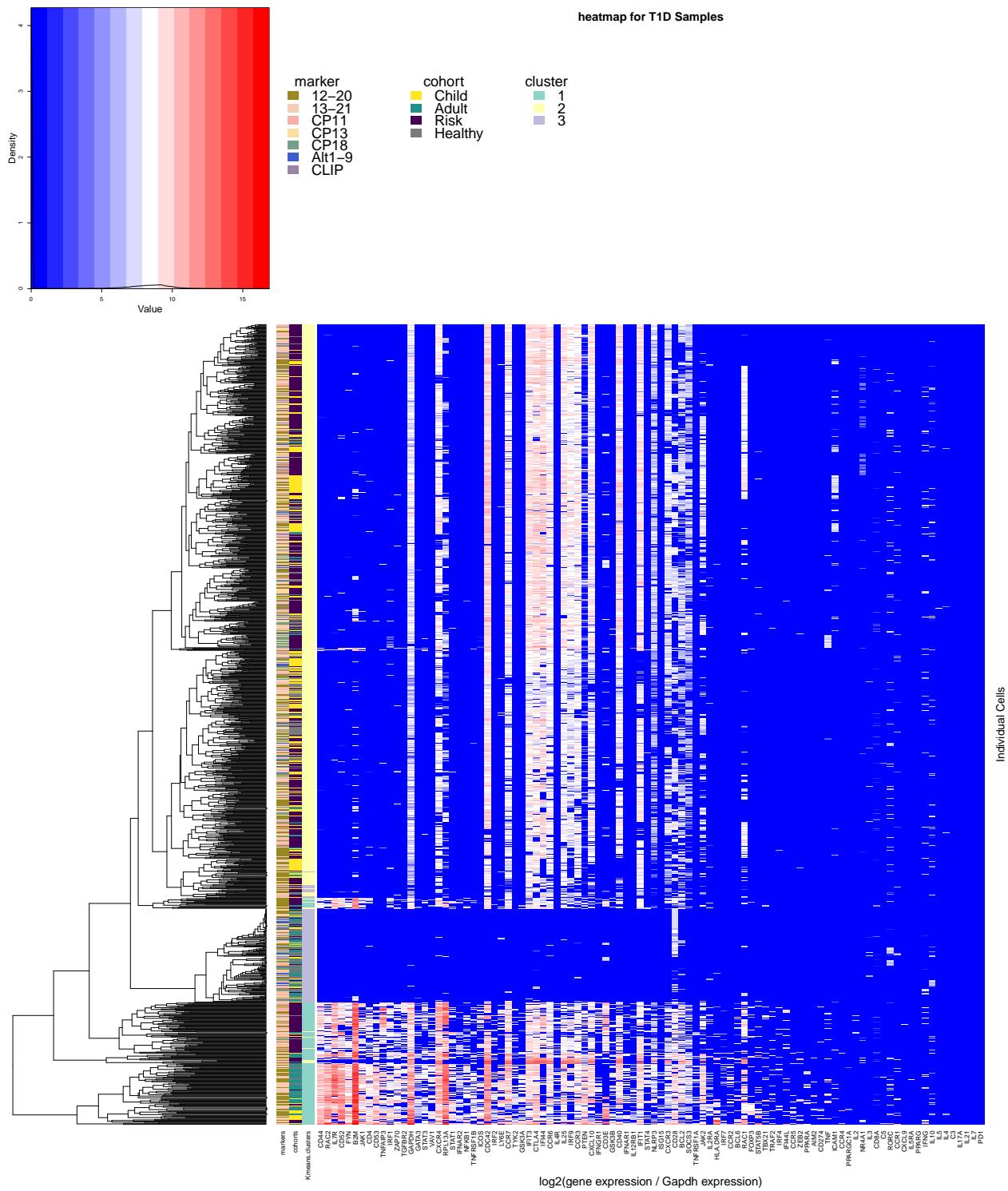


T1D_Tetramer_Cells_Analysis

No expression detected in 47/1950 cells

No expression detected in 19/1223 Tetramer cells





```
[1]  
[1]  
[1] Cohort vs. Cluster  
      cohort_Child cohort_Adult cohort_Risk cohort_Healthy  
cluster_1          22        65        86        15  
cluster_2         227        35       486       115  
cluster_3          20        55        22        56
```

```
Pearson's Chi-squared test with simulated p-value (based on 2000  
replicates)
```

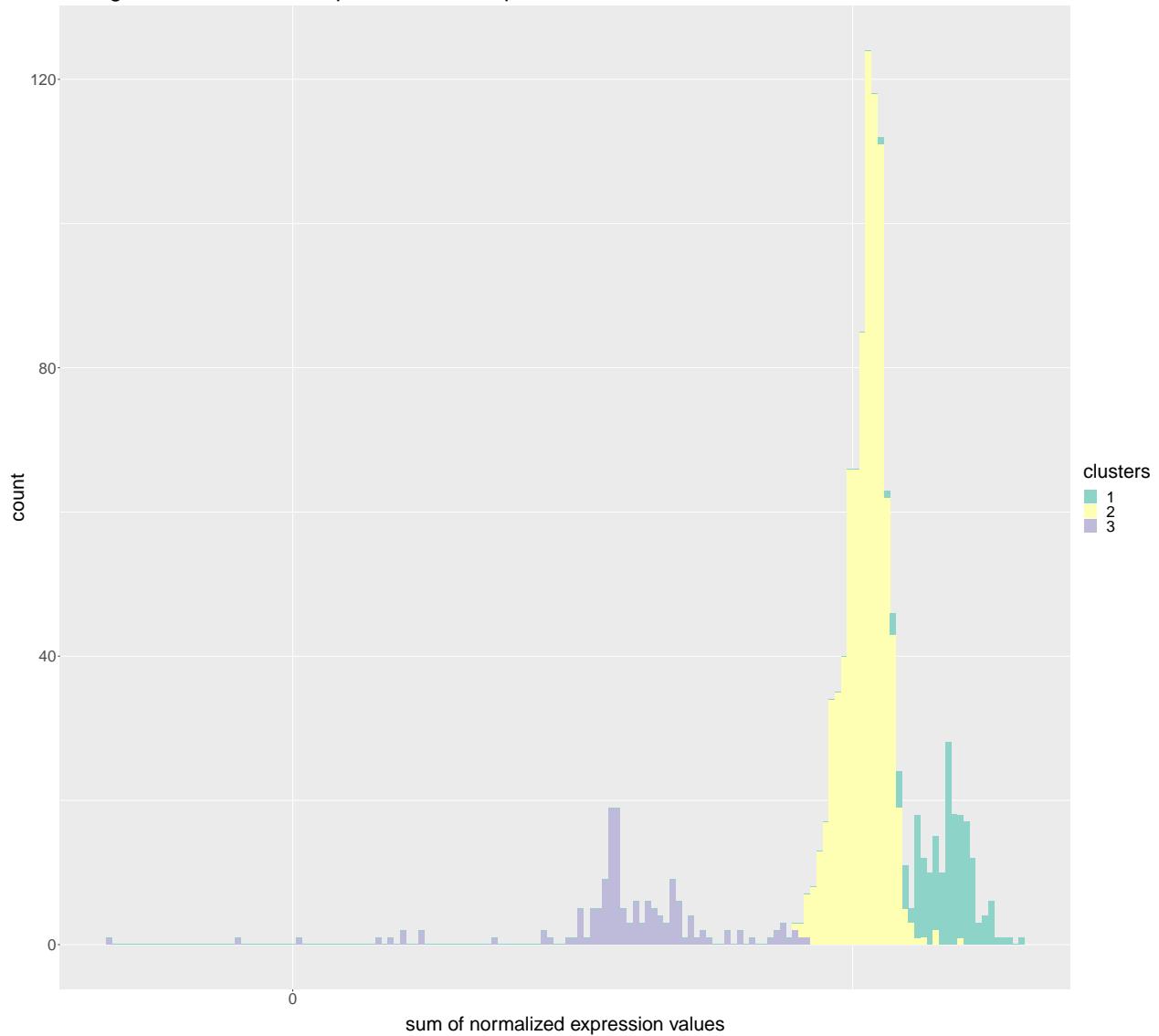
```
data: cohortTable  
X-squared = 306.17, df = NA, p-value = 0.0004998
```

```
[1]  
[1]  
[1] marker vs. Cluster  
      marker_12-20 marker_13-21 marker_CP11 marker_CP13 marker_CP18  
cluster_1          86           68           27            4            3  
cluster_2         271          253          102           94           83  
cluster_3          34           32           22           21           18  
      marker_Alt1-9 marker_CLIP  
cluster_1           0            0  
cluster_2          25           35  
cluster_3          23            3
```

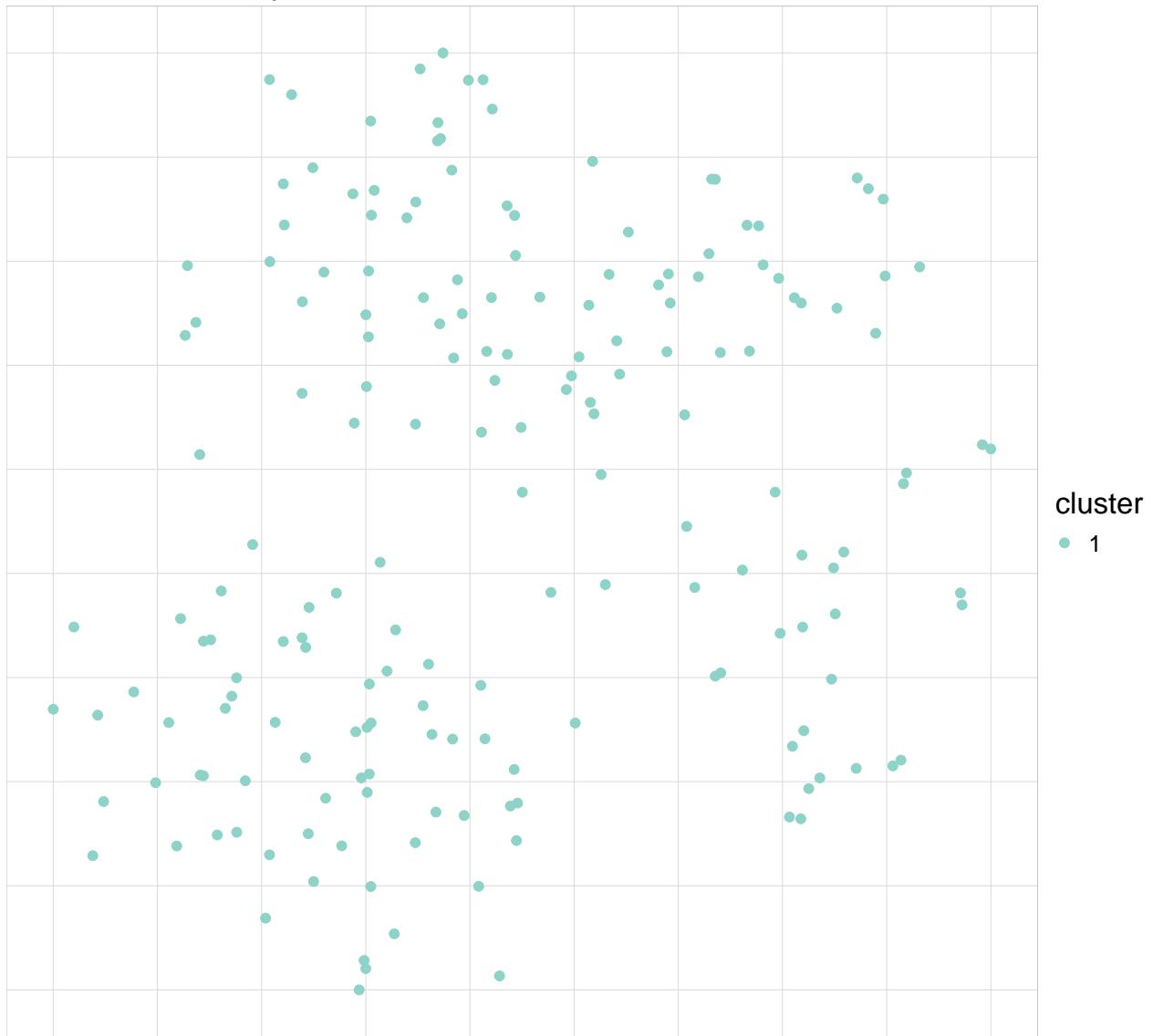
```
Pearson's Chi-squared test with simulated p-value (based on 2000  
replicates)
```

```
data: markerTable  
X-squared = 117.24, df = NA, p-value = 0.0004998
```

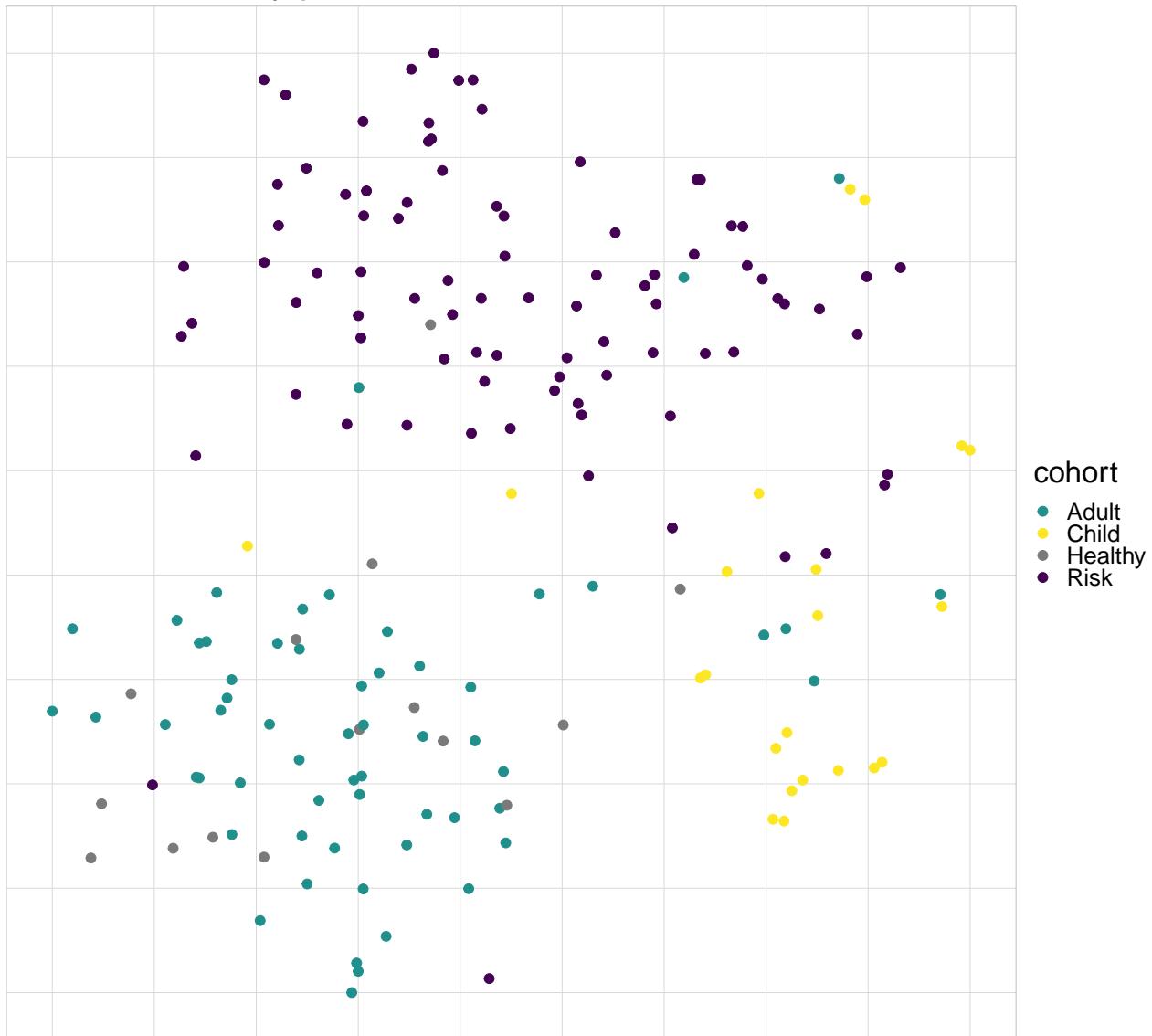
histogram of cumulative expression values per cell



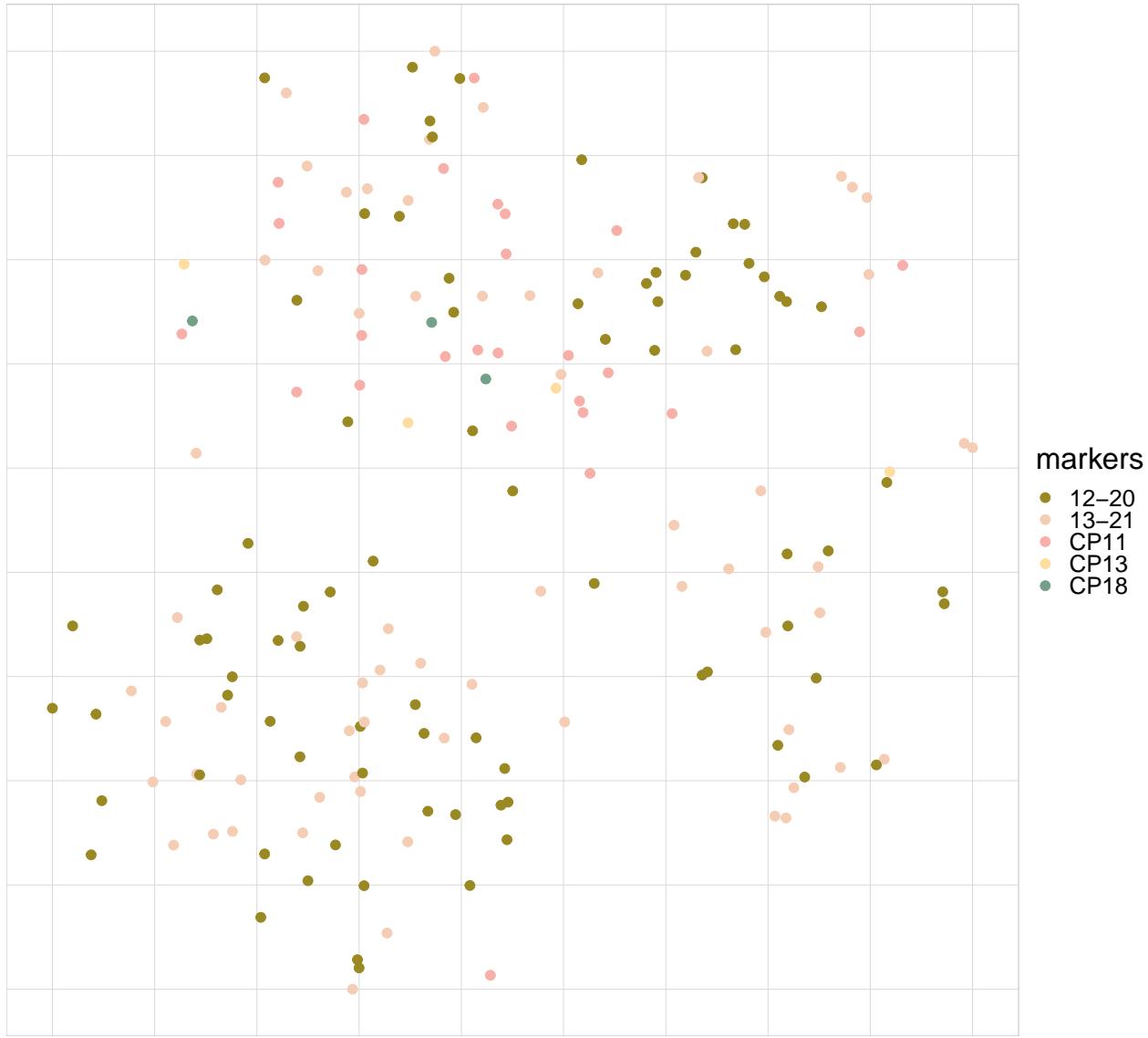
t-SNE colored by kmeans.cluster



t-SNE colored by patient cohorts



t-SNE colored by different markers



[1] Differentially expressed genes between Cohorts for human samples:

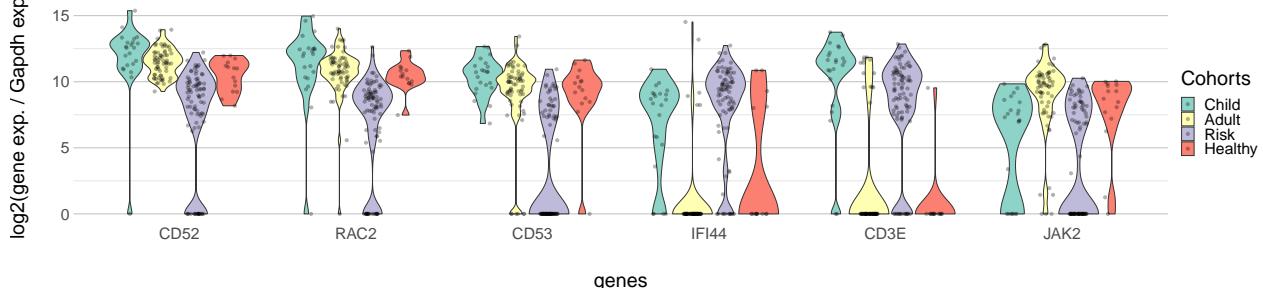
```

[1] CD52: 2.315e-19      RAC2: 1.141e-18      CD53: 3.774e-17
[4] IFI44: 3.62e-16      CD3E: 5.656e-14      JAK2: 2.158e-13
[7] CDC42: 4.486e-13     ZAP70: 4.834e-12     B2M: 6.066e-12
[10] TNFRSF1B: 1.013e-11   HLA.DRA: 5.642e-11    IL7R: 2e-10
[13] RPL13A: 8.296e-09     FYN: 8.979e-09      PTEN: 8.979e-09
[16] CCR5: 2.042e-08      VAV1: 3.348e-08      GAPDH: 6.018e-08
[19] CD40: 1.002e-07      CD44: 2.121e-07      IFNAR1: 4.002e-07
[22] CD4: 4.817e-07       STAT1: 7.691e-07     IRF1: 8.209e-07
[25] IRF2: 9.422e-07      STAT5B: 1.972e-06    CCR4: 3.289e-06
[28] BCL2: 3.765e-06      IFNAR2: 4.101e-06    CD28: 5.059e-06
[31] GSK3A: 5.27e-06       CXCL10: 5.27e-06     SOCS3: 5.27e-06
[34] IFIT3: 5.349e-06      GATA3: 7.586e-06    IL25: 8.146e-06
[37] NLRP3: 1.004e-05      LY6E: 2.087e-05     IL12RB1: 3.179e-05
[40] IFIT1: 3.893e-05      CCR3: 4.451e-05     CCR6: 5.276e-05
[43] CCR2: 6.512e-05      ISG15: 8.543e-05    IRF9: 0.0001941

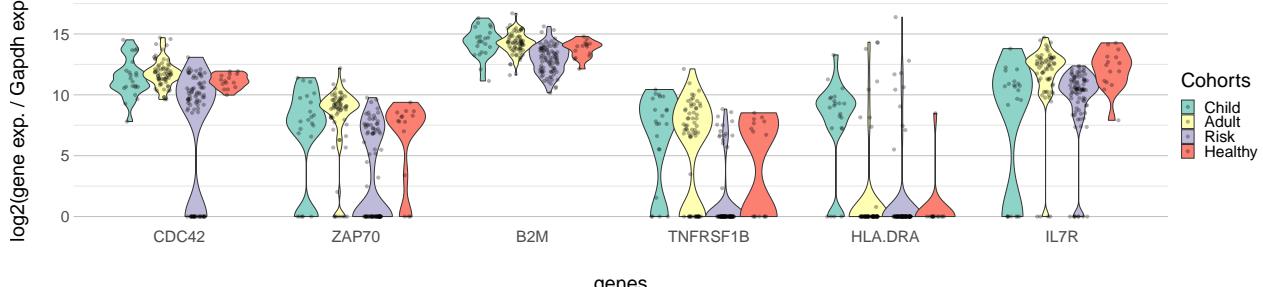
```

[46]	TNFRSF1A: 0.0003596	JAK1: 0.0004551	TYK2: 0.0006821
[49]	CCR7: 0.0007021	CTLA4: 0.001065	IRF7: 0.001365
[52]	TNFAIP3: 0.005047	FOXP3: 0.006733	PPARA: 0.006896
[55]	IL5RA: 0.01483	CCR1: 0.02803	GSK3B: 0.02956
[58]	ICAM1: 0.03185	NFKB1: 0.04812	ZEB2: 0.04856

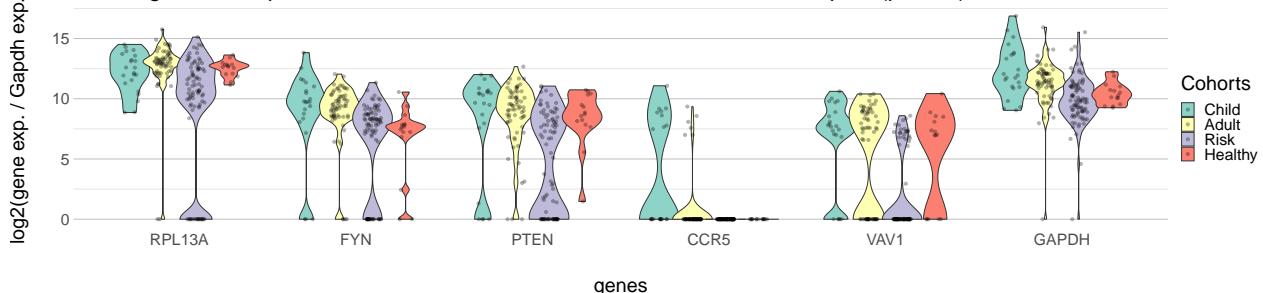
most significant expression differences between Cohorts for human samples (plot #1)



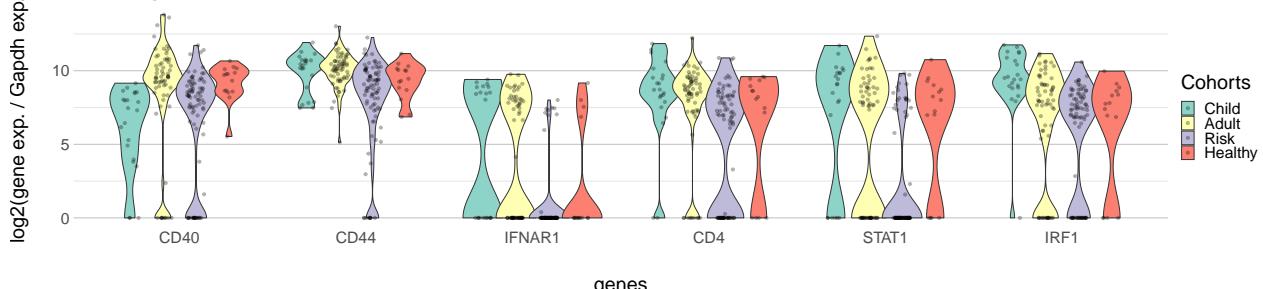
most significant expression differences between Cohorts for human samples (plot #2)

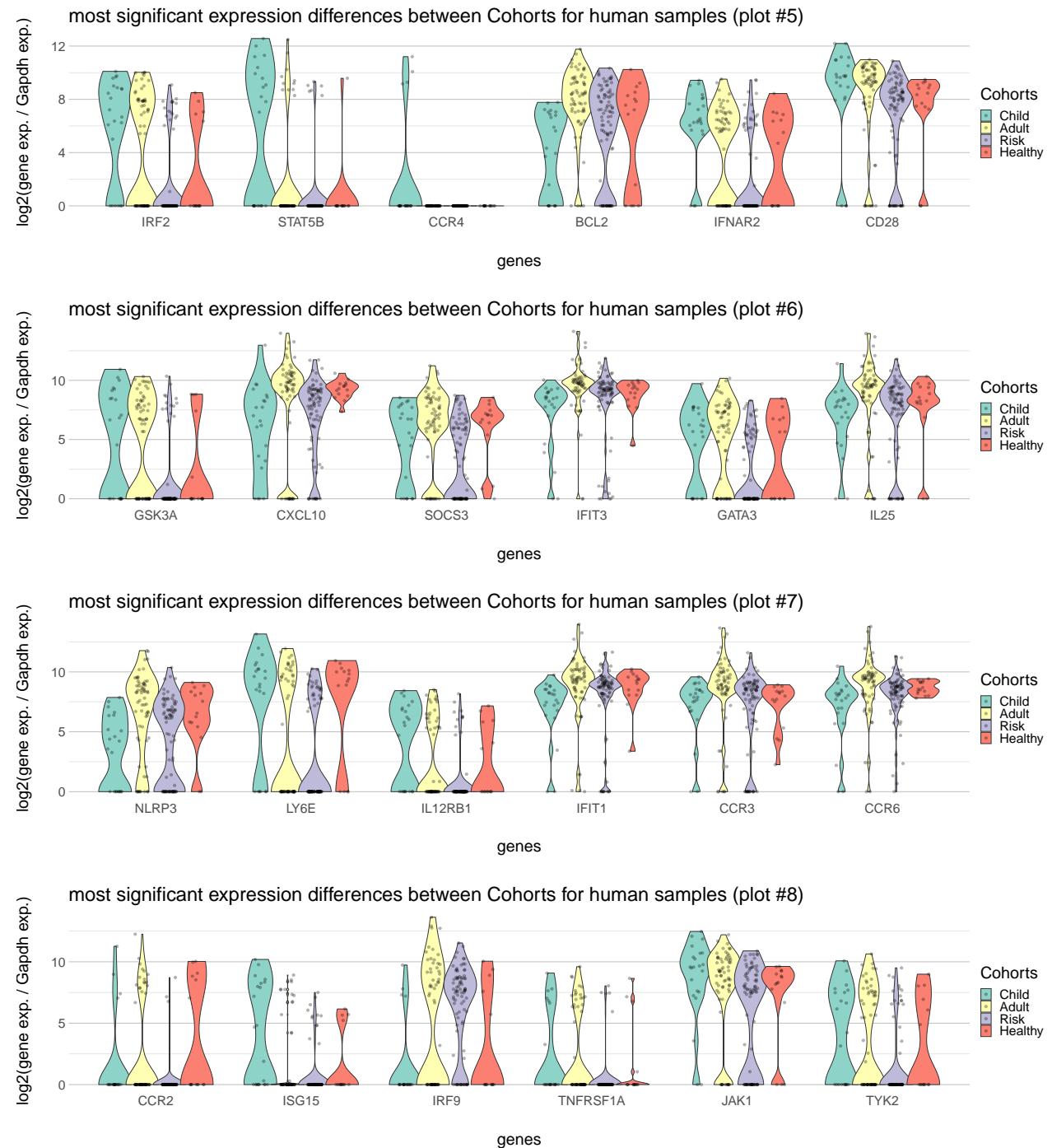


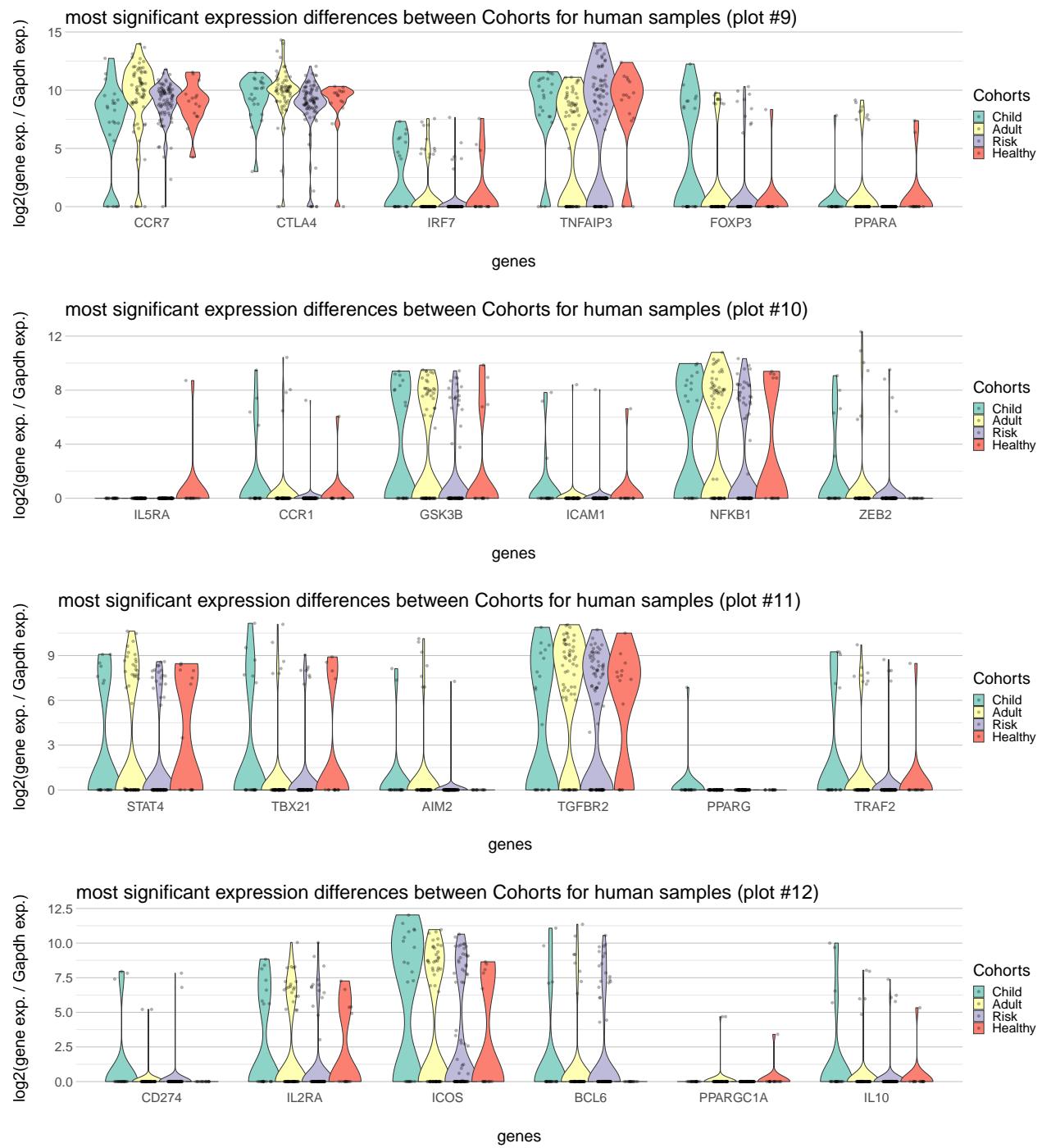
most significant expression differences between Cohorts for human samples (plot #3)

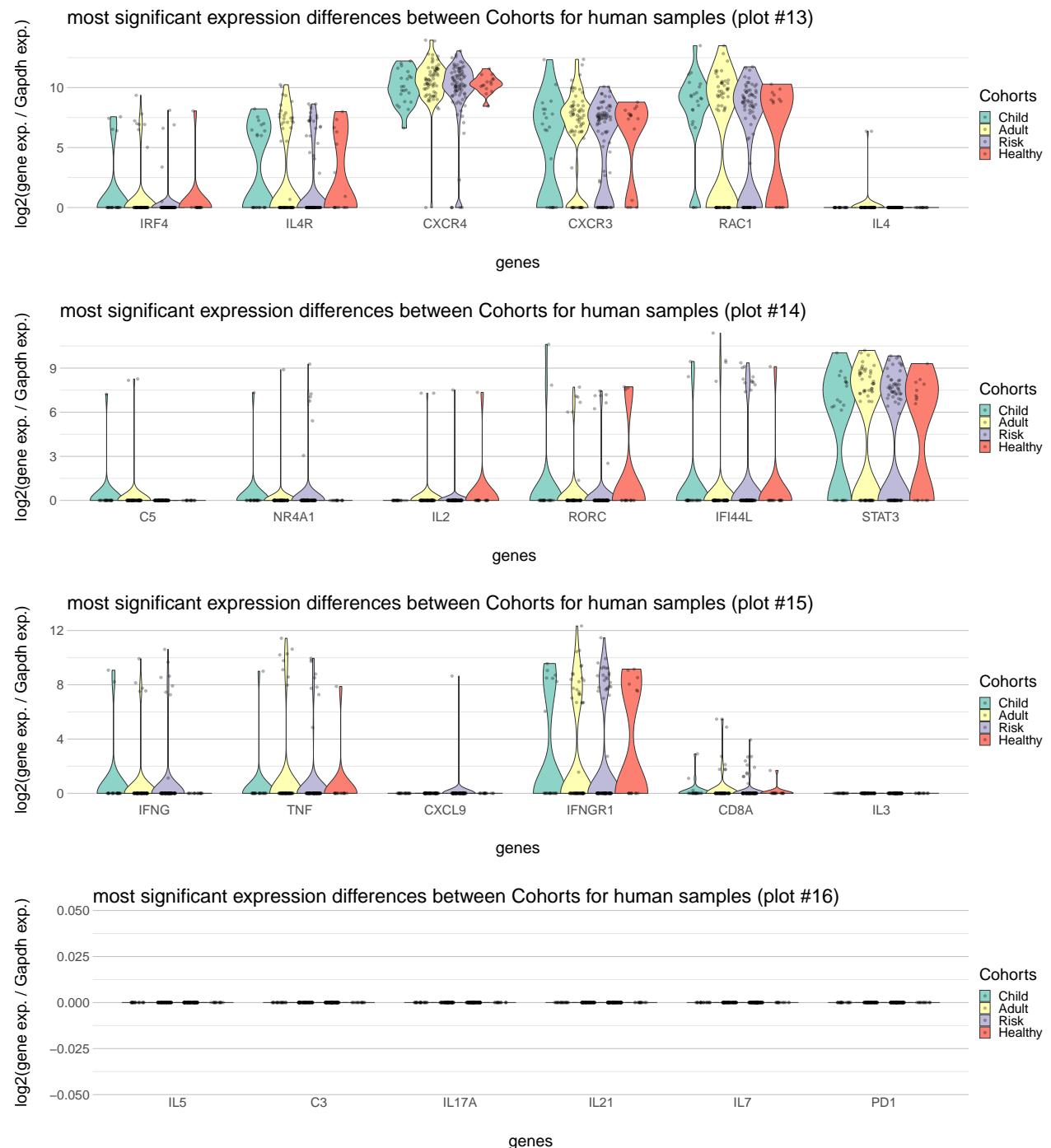


most significant expression differences between Cohorts for human samples (plot #4)









```
[1] Differentially expressed genes between Markers for human samples:
[1] RAC2: 0.001132    CD52: 0.001132    CD53: 0.001132
[4] IFI44: 0.001681    PTEN: 0.002176    BCL6: 0.002982
[7] CD4: 0.003058     B2M: 0.01783      ISG15: 0.03355
[10] TNFRSF1B: 0.03595   IL7R: 0.04237
```

