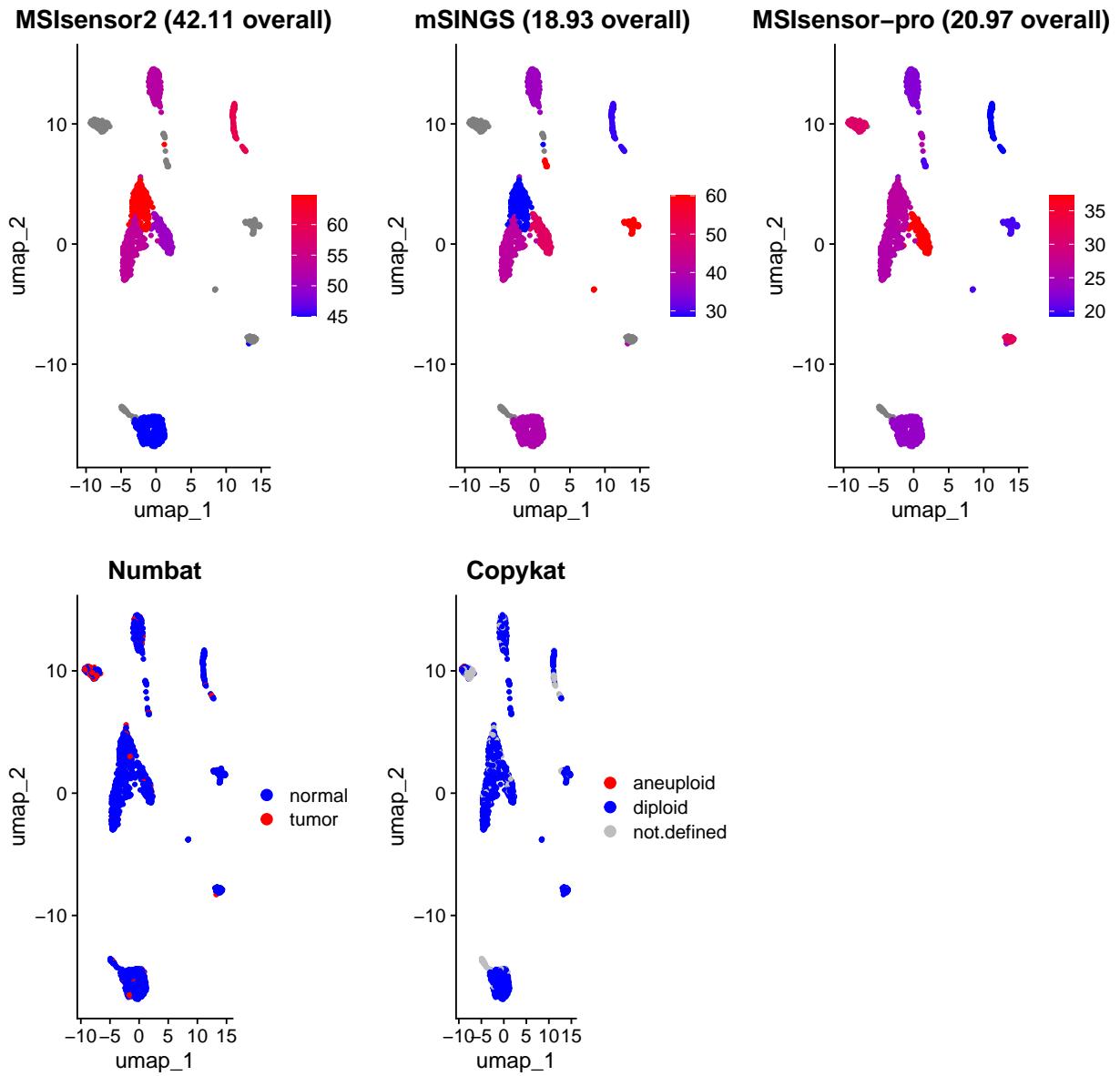


# The heterogeneity of 18 MSI-H single cell RNA-seq samples

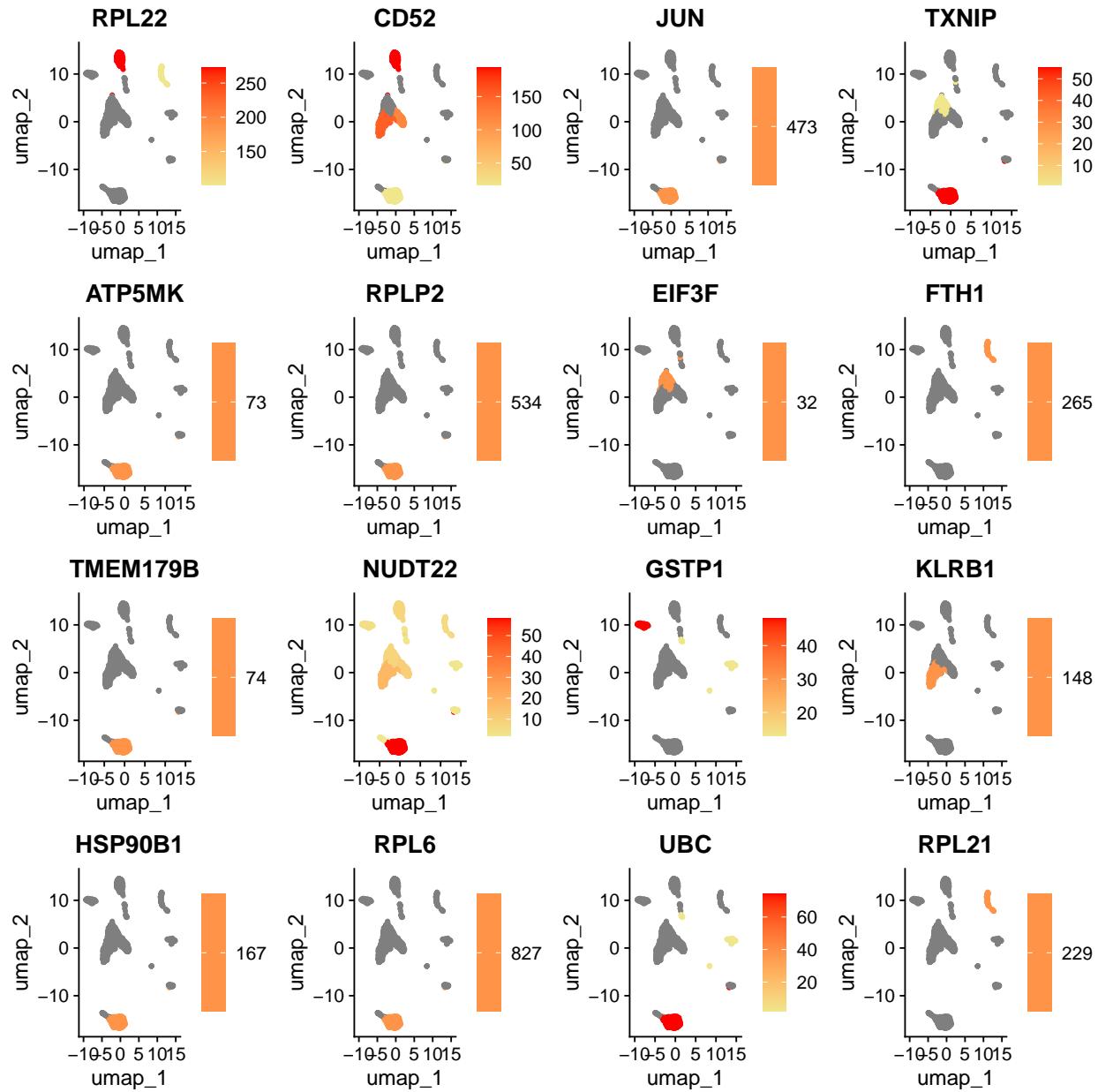
Harrison Anthony

2024-07-02

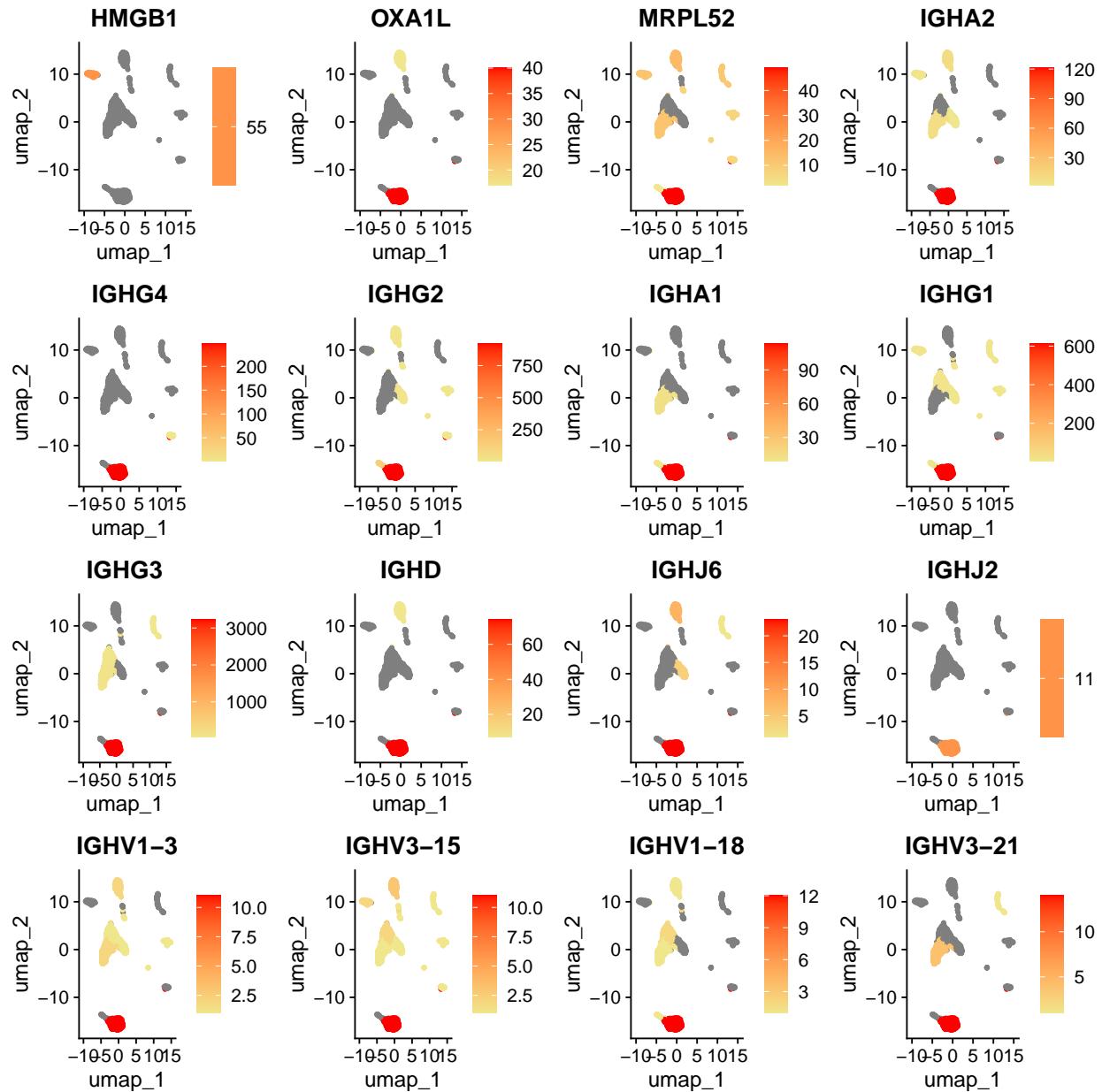
## EXT016; tumor2; MSS; PCR



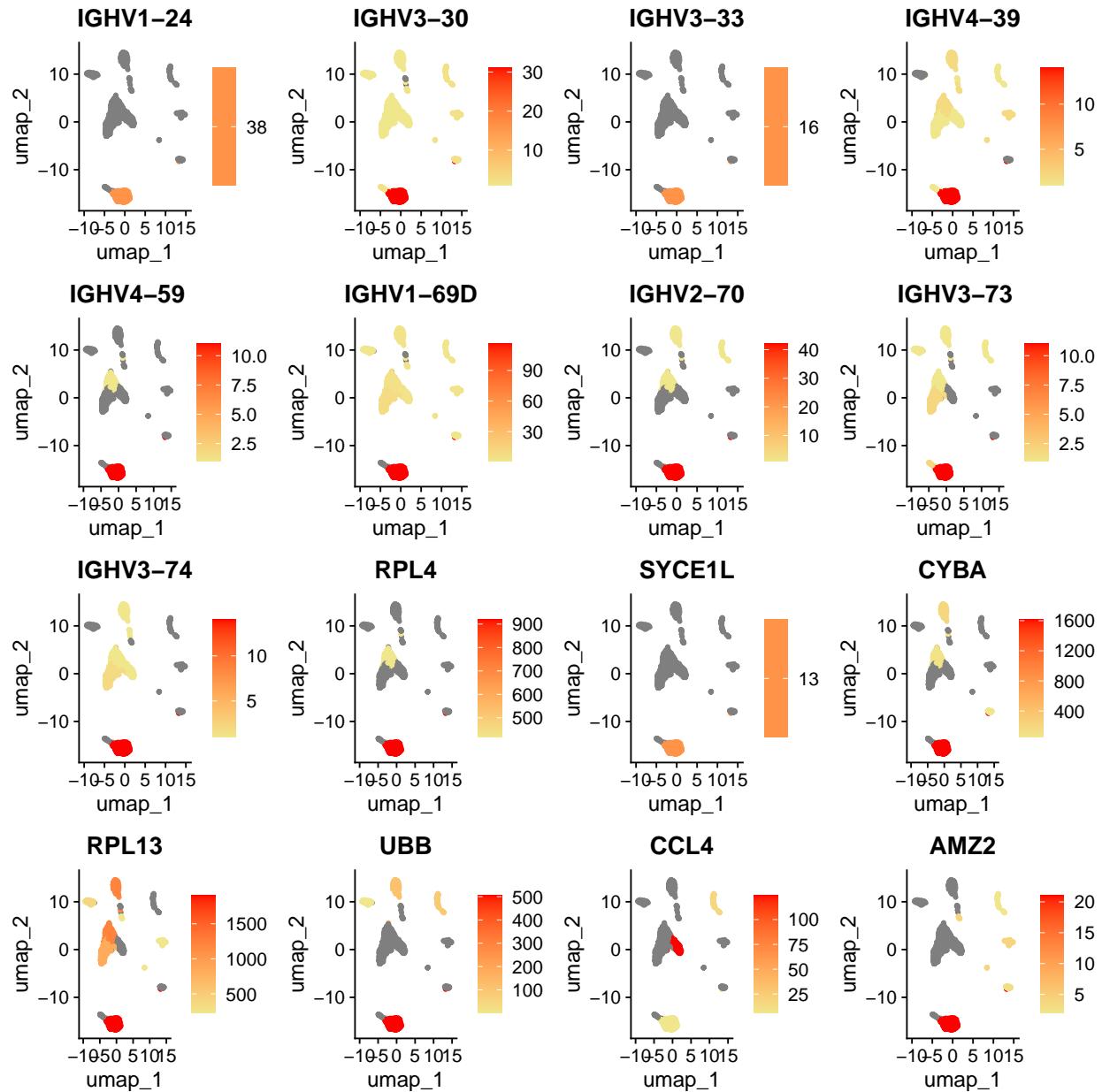
## \$`1`



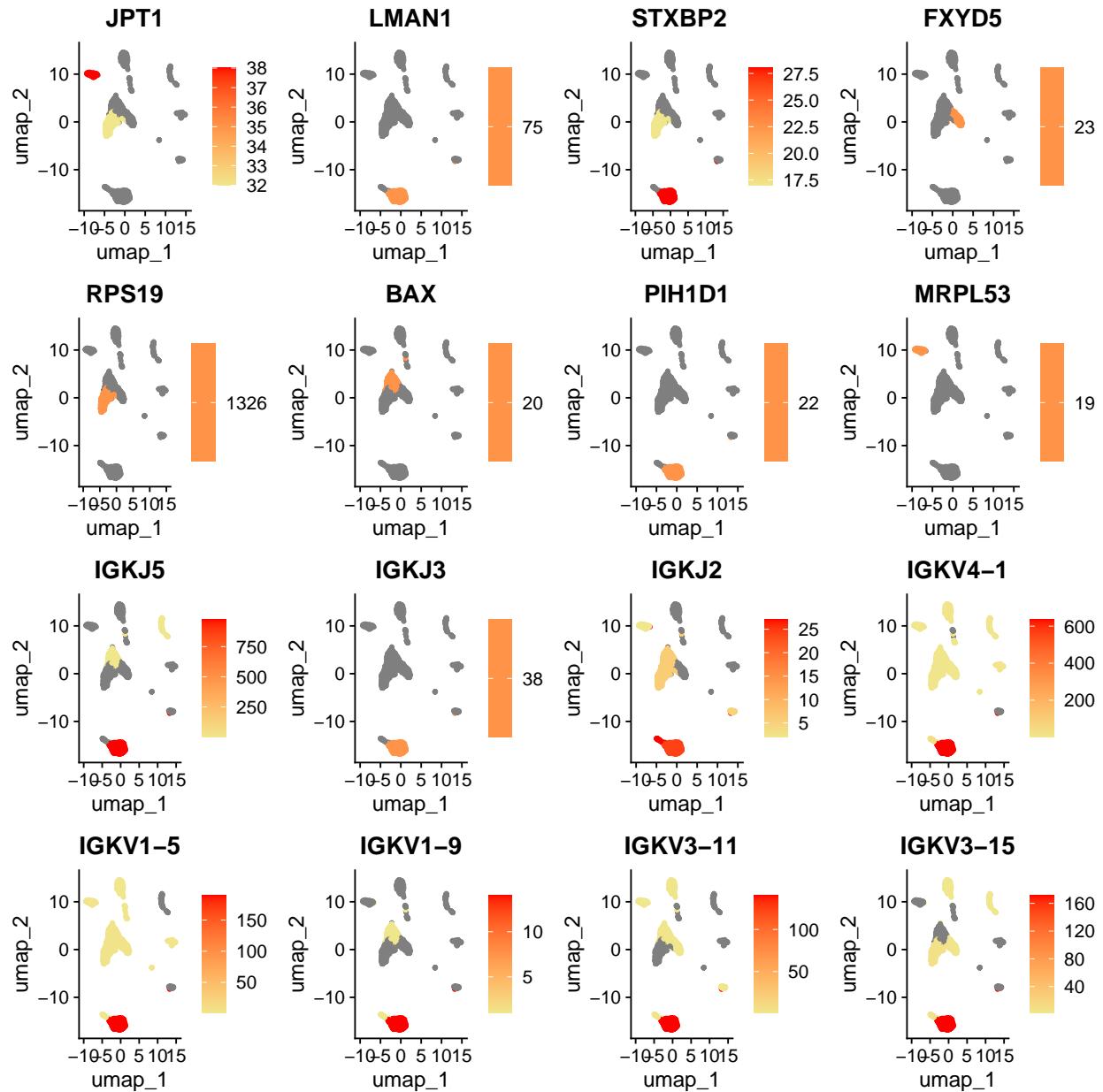
```
##  
## $^2`
```



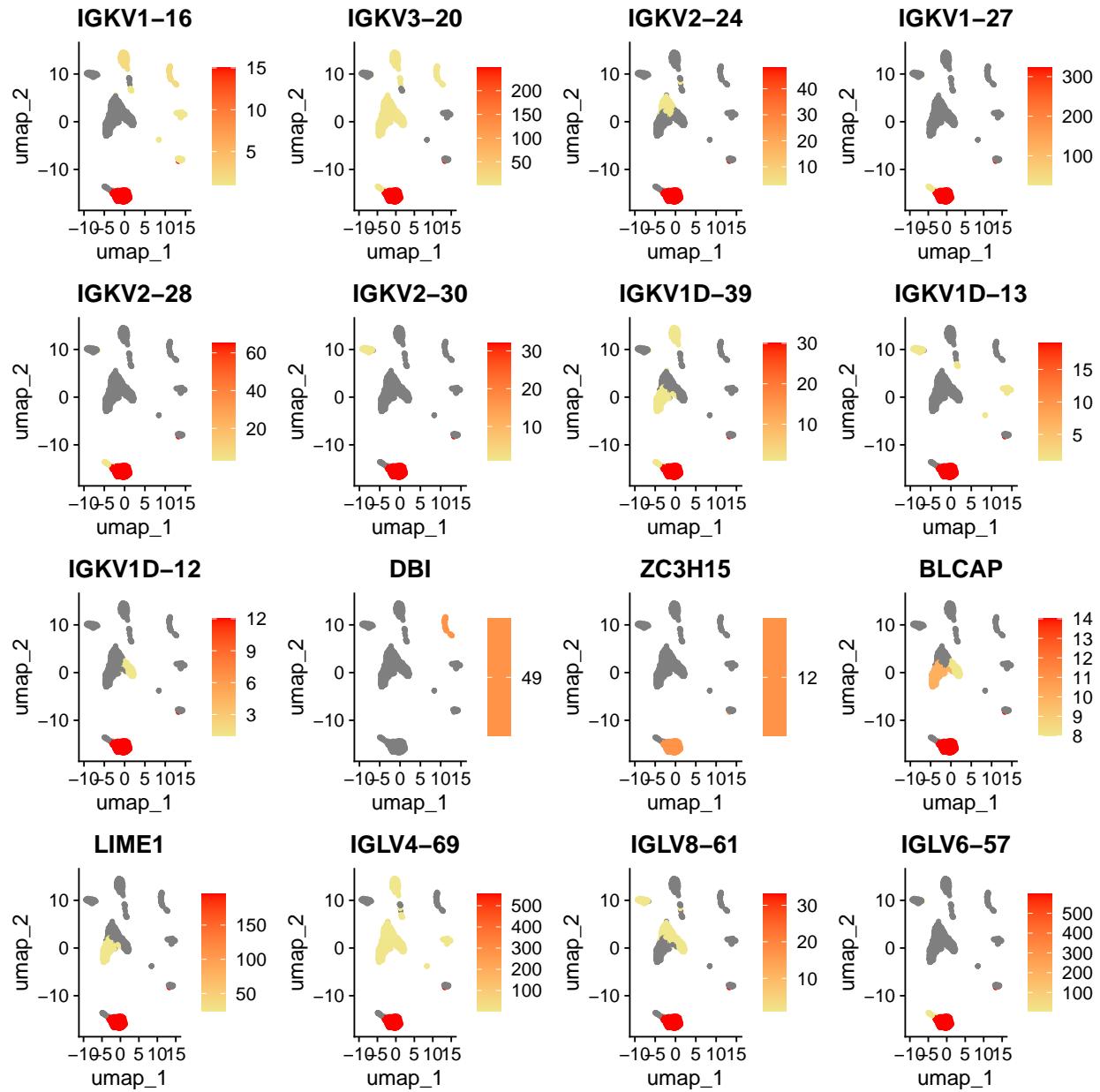
```
##  
## $`3`
```



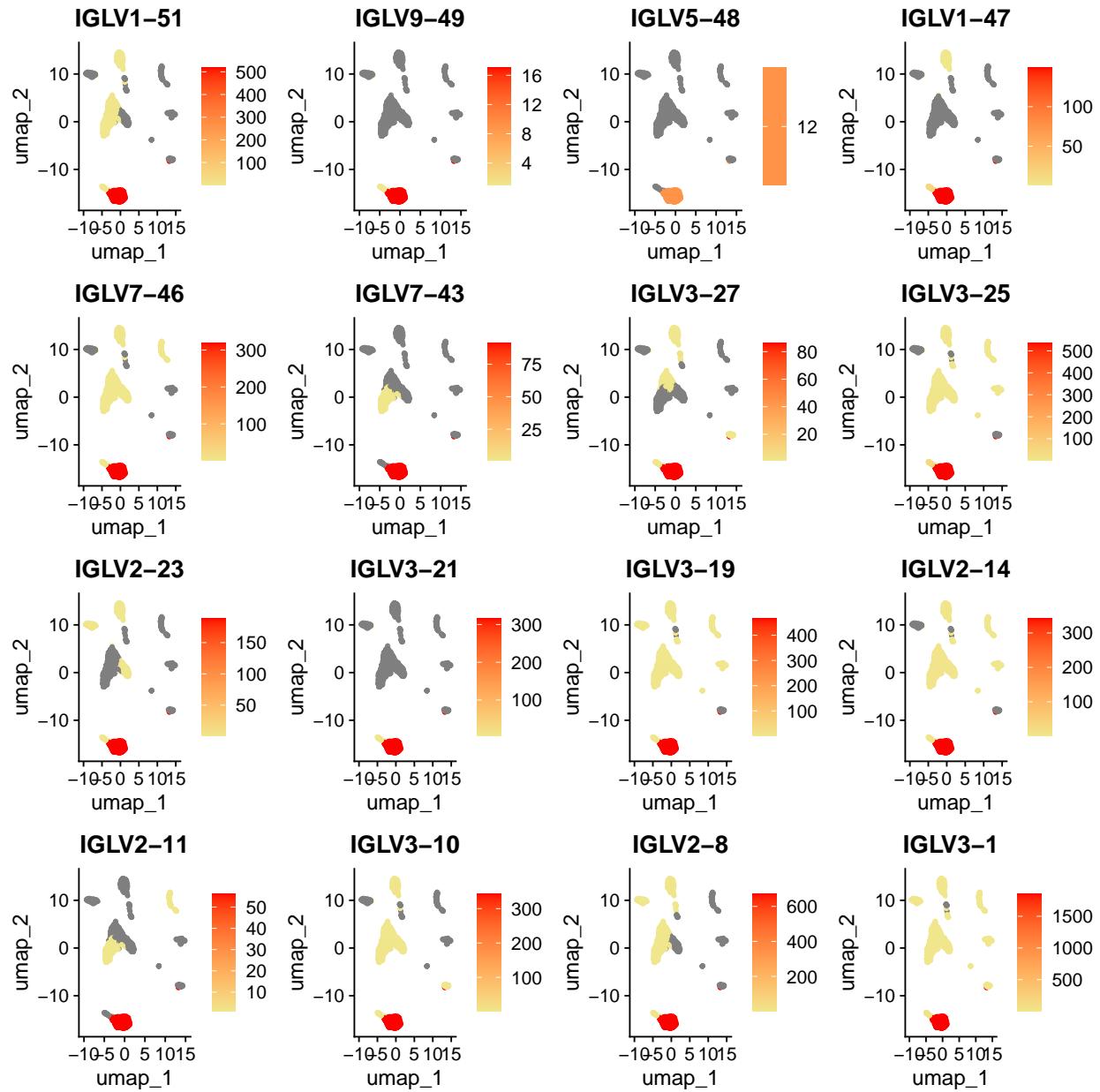
```
##  
## $`4`
```



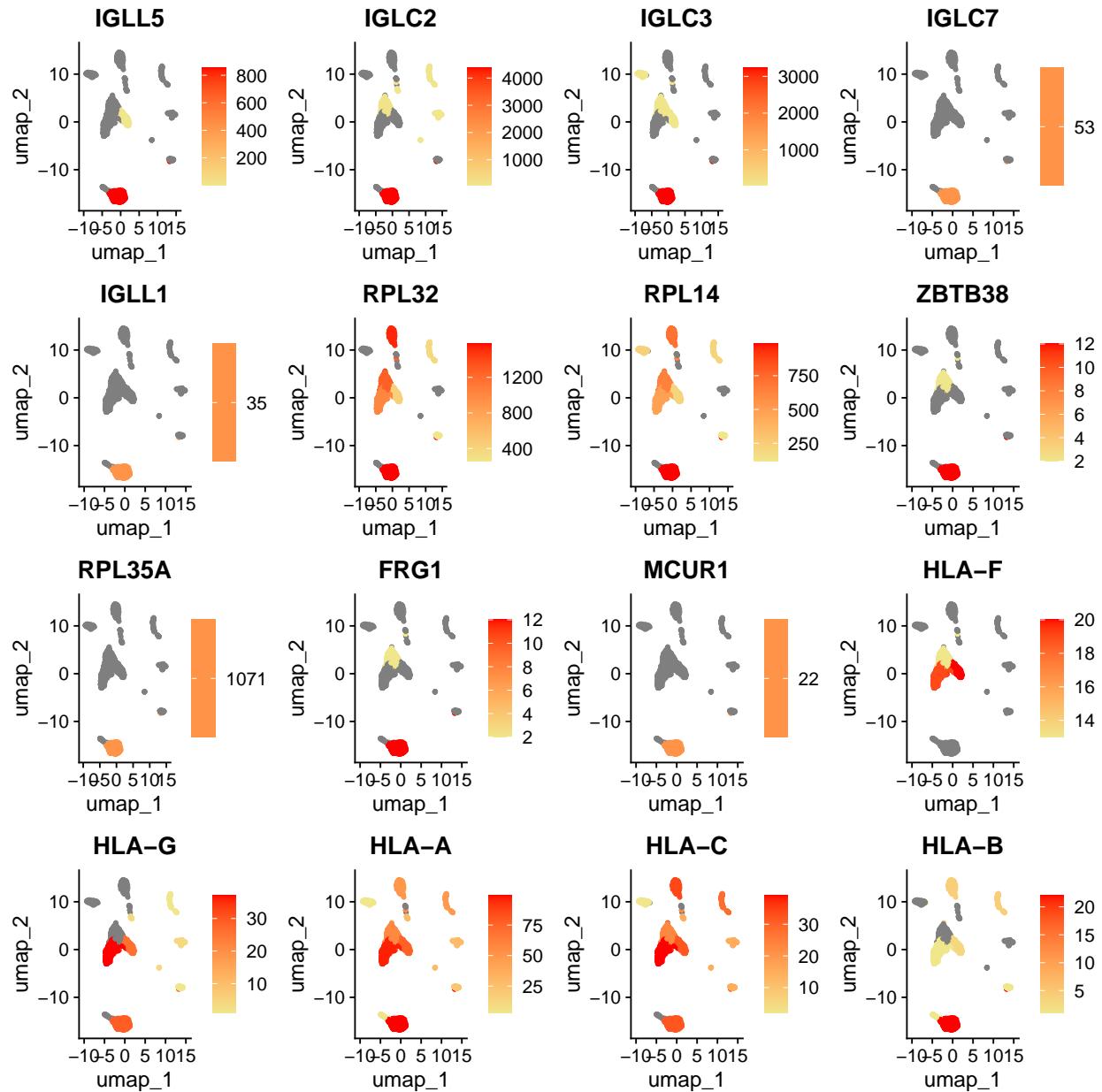
```
##  
## $`5`
```



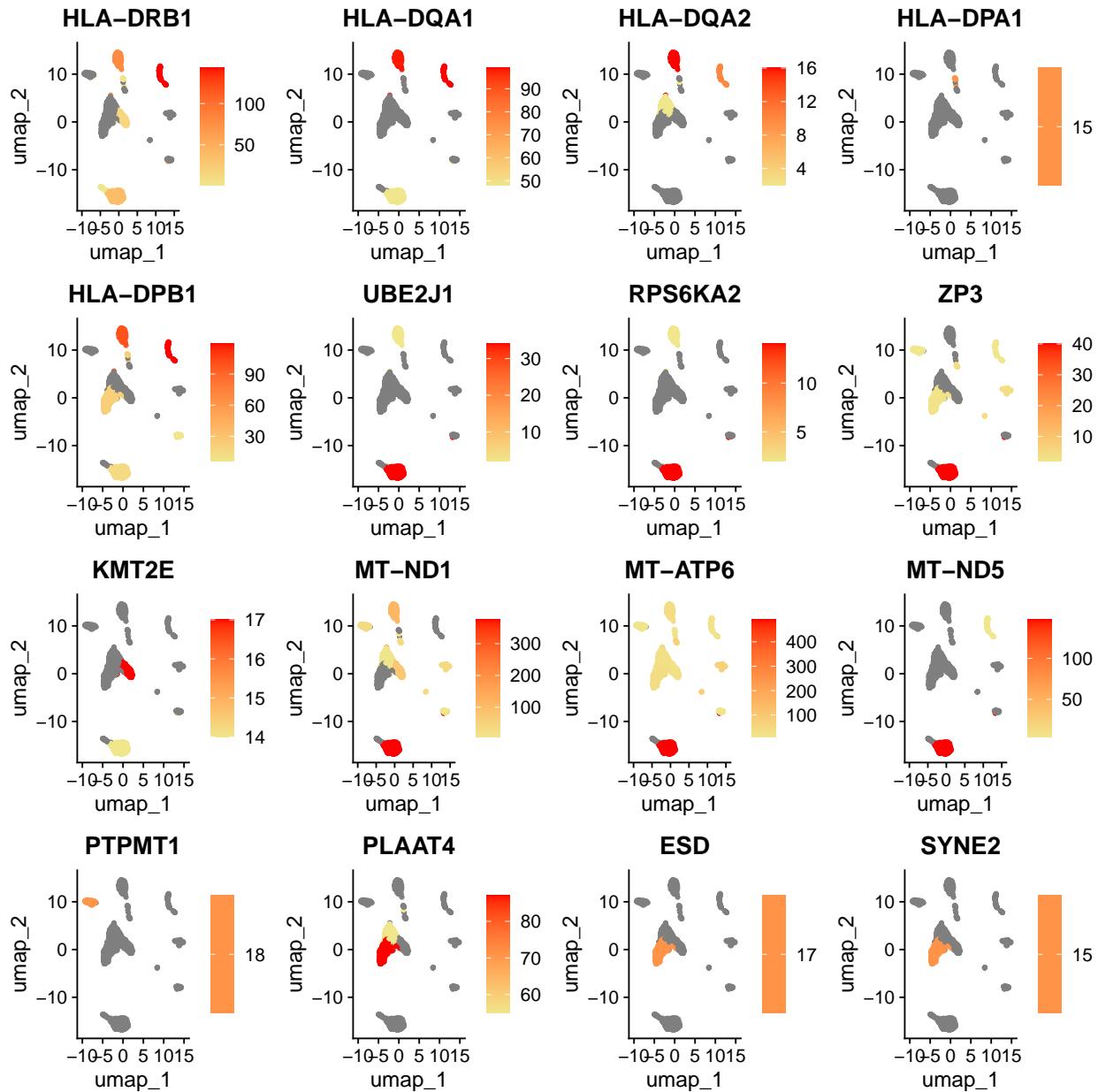
```
##  
## $`6`
```



```
##  
## $`7`
```



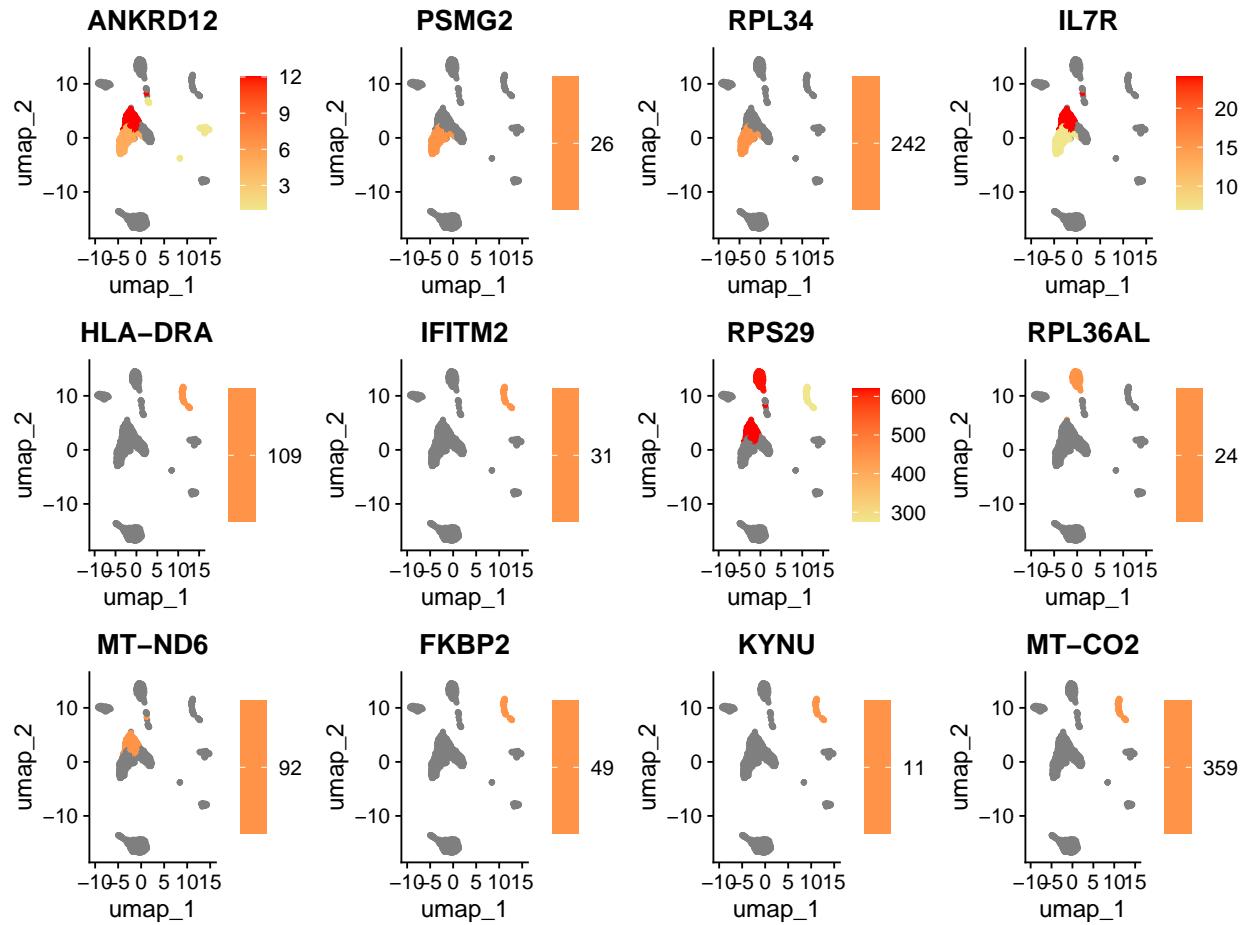
```
##  
## $`8`
```



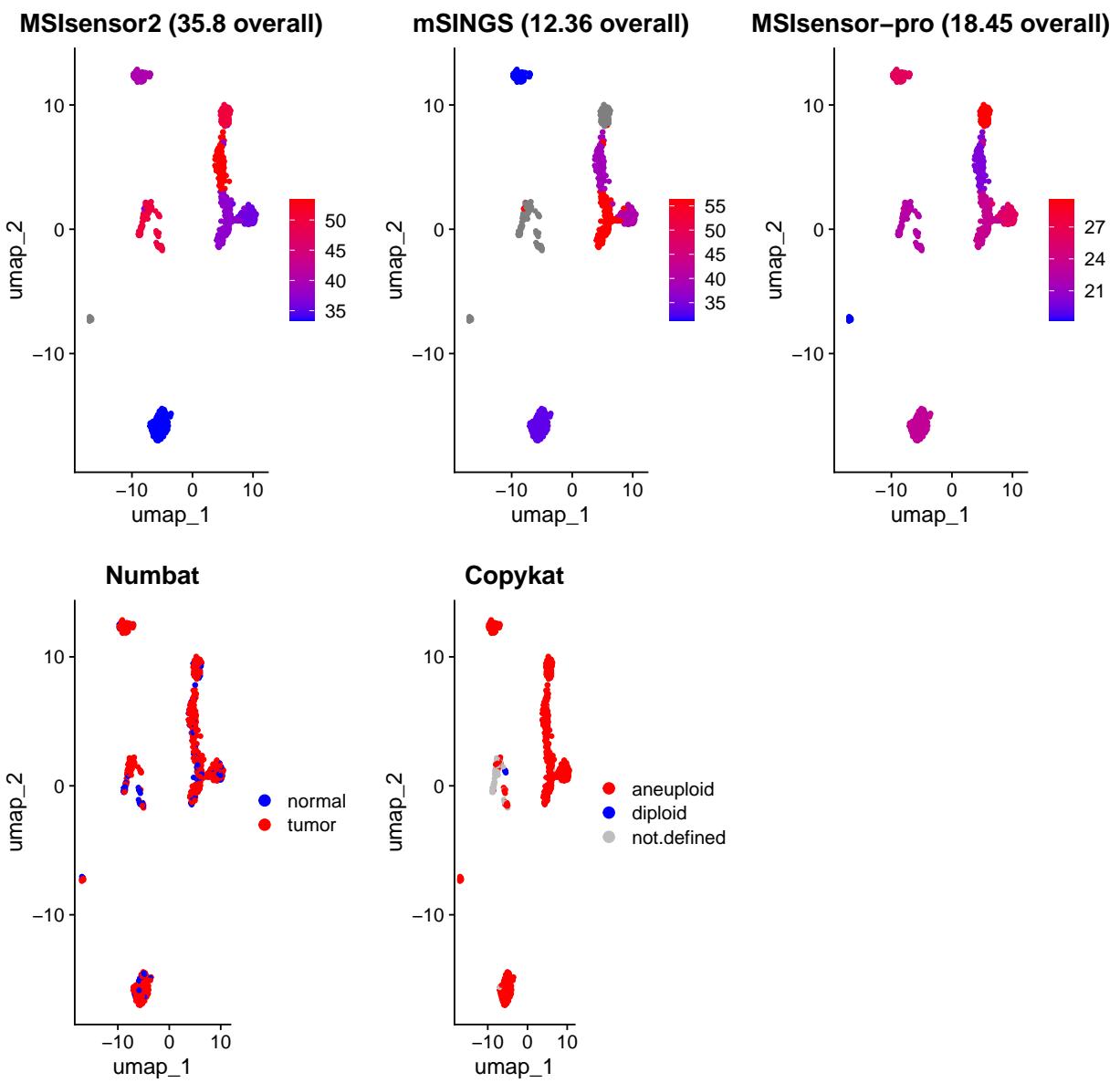
```
##
## $`9`  

##  

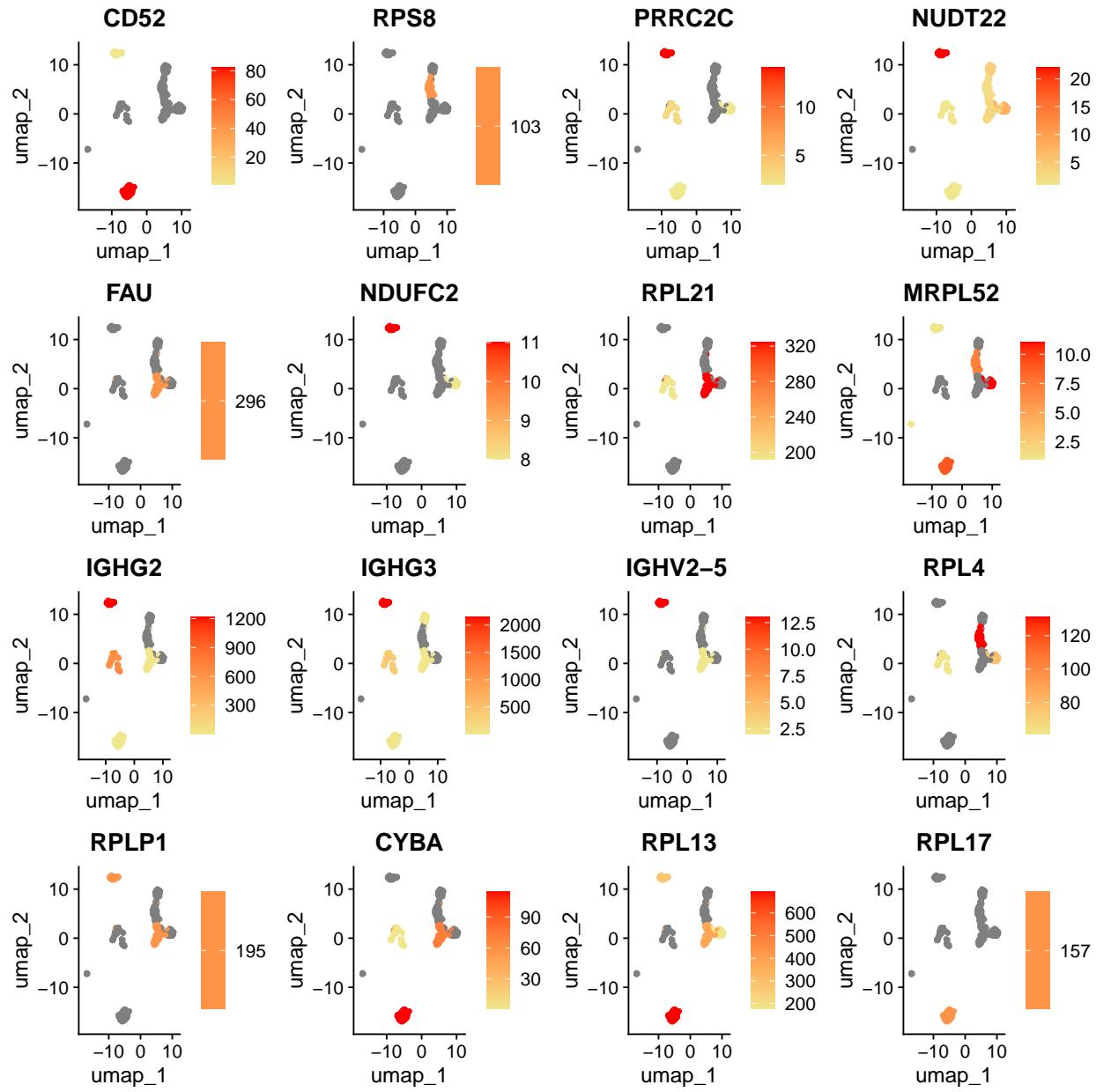
## attr(),"class")
## [1] "list"      "ggarrange"
```



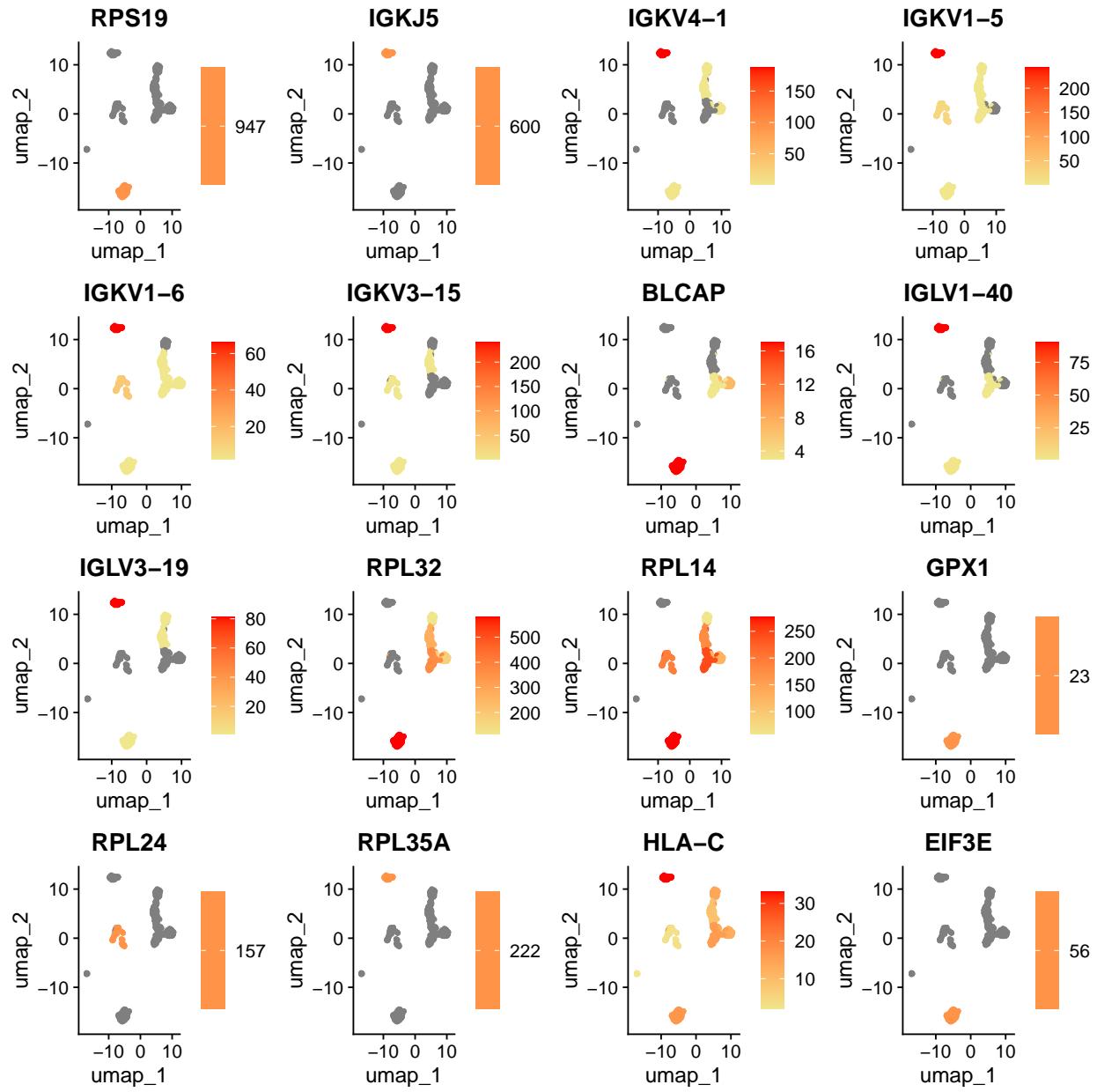
### EXT018; tumor1; MSS; PCR



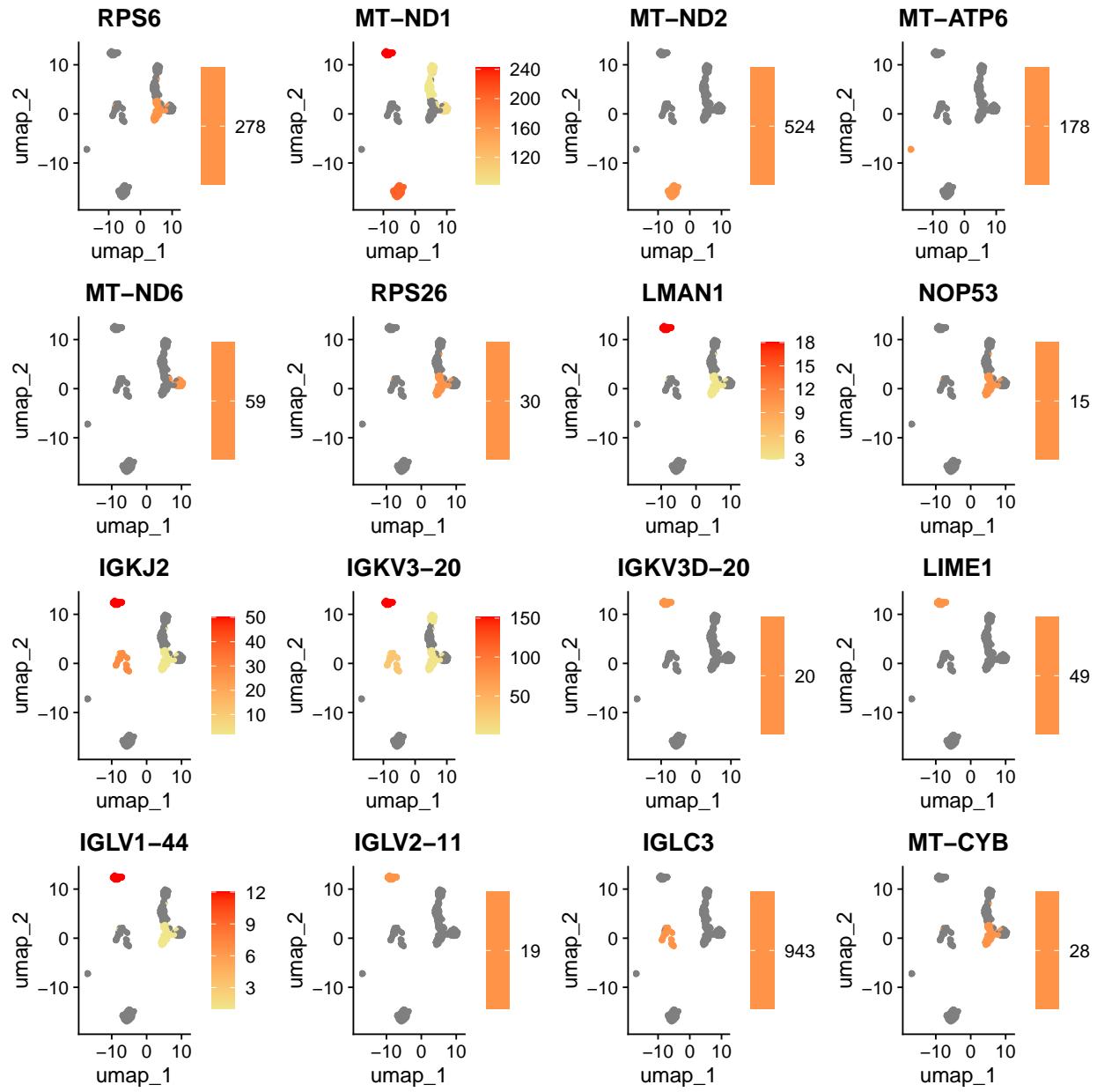
```
## $`1`
```



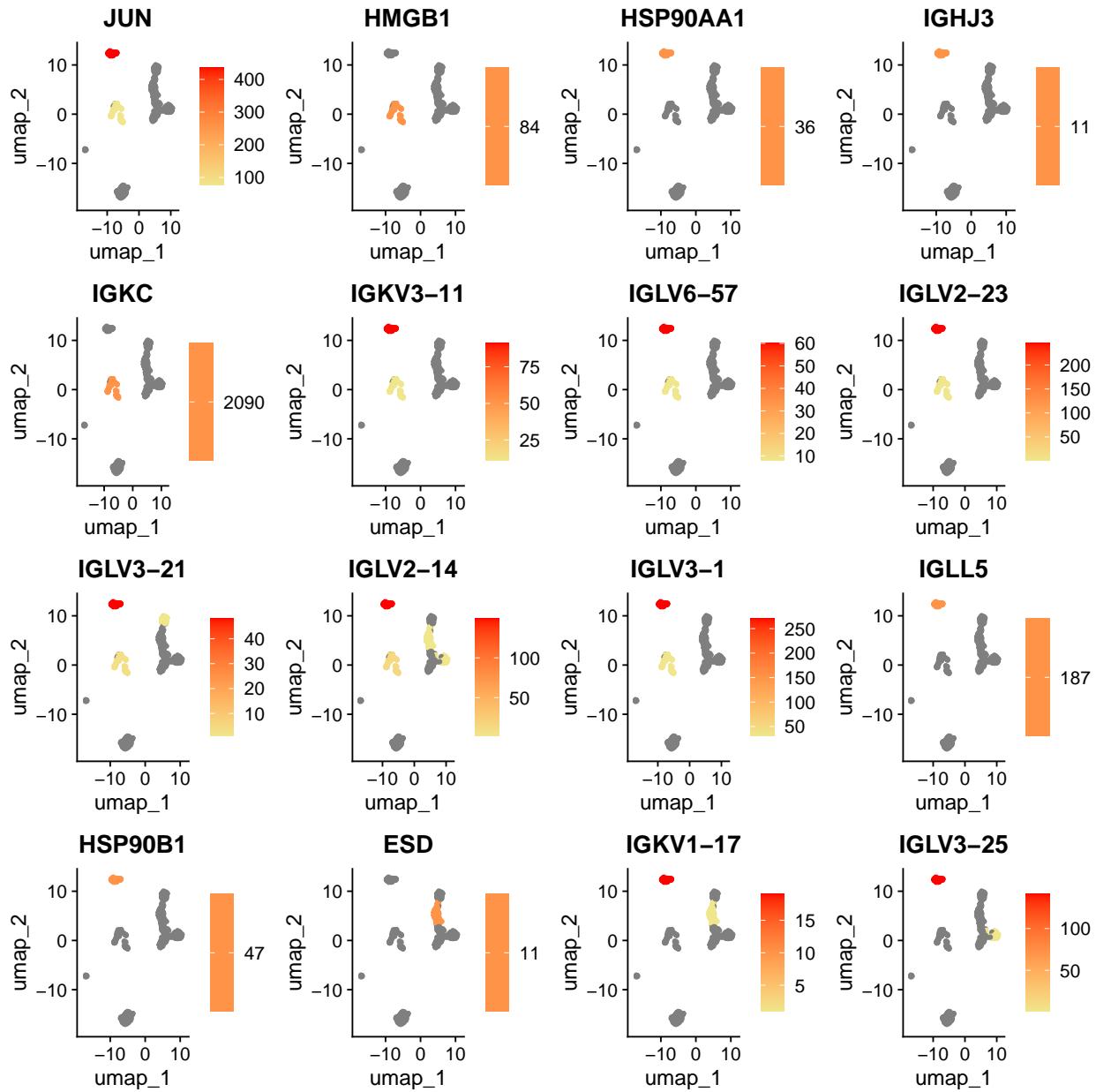
```
##  
## $^2`
```



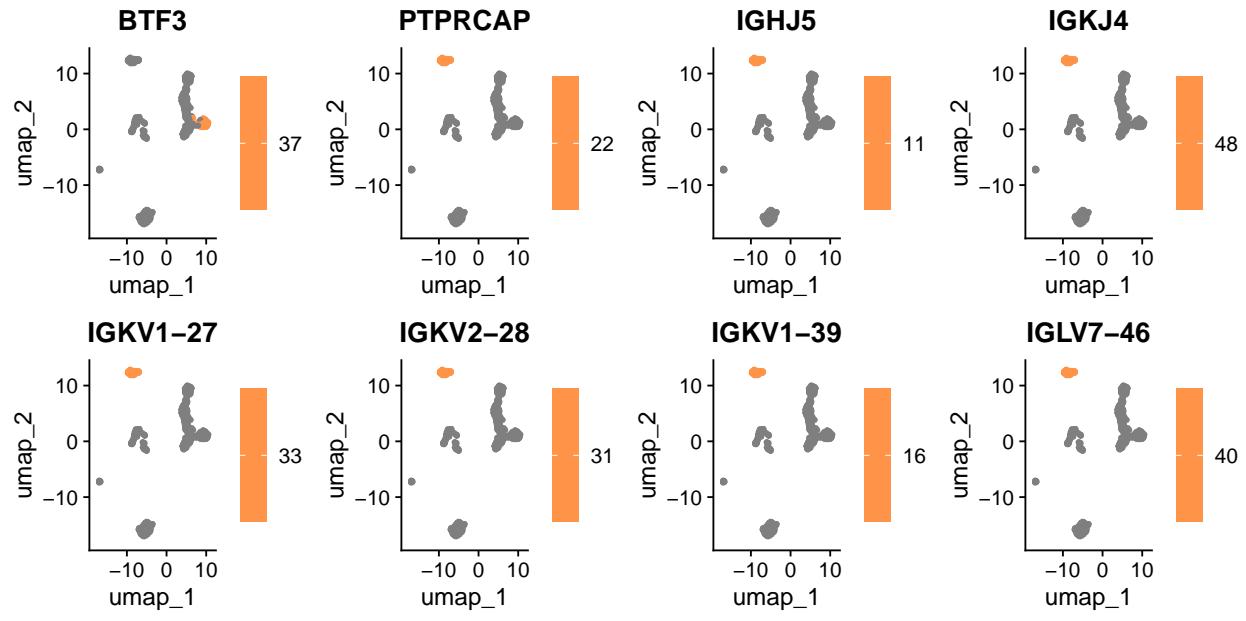
```
##  
## $`3`
```



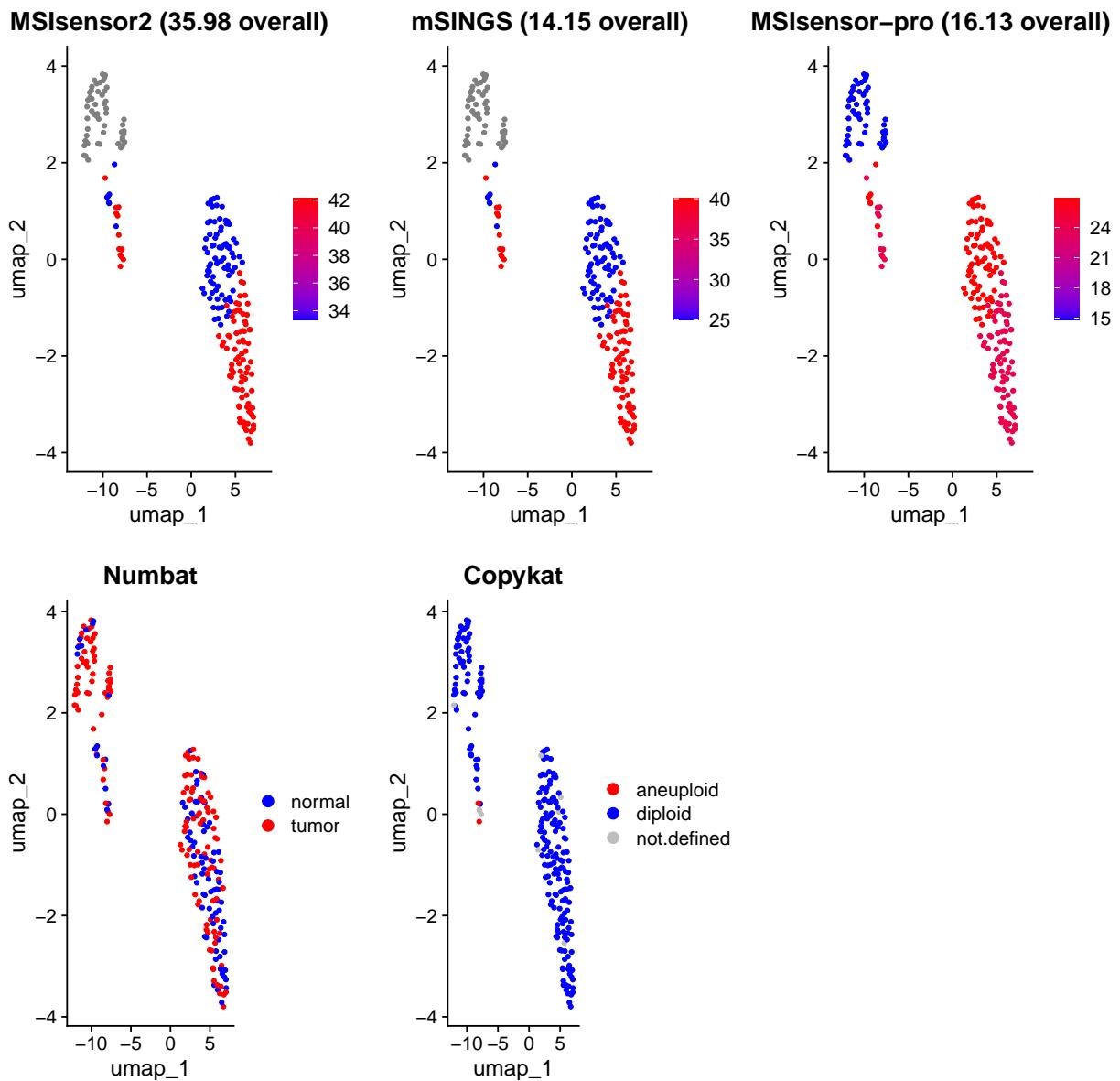
```
##  
## $`4`
```



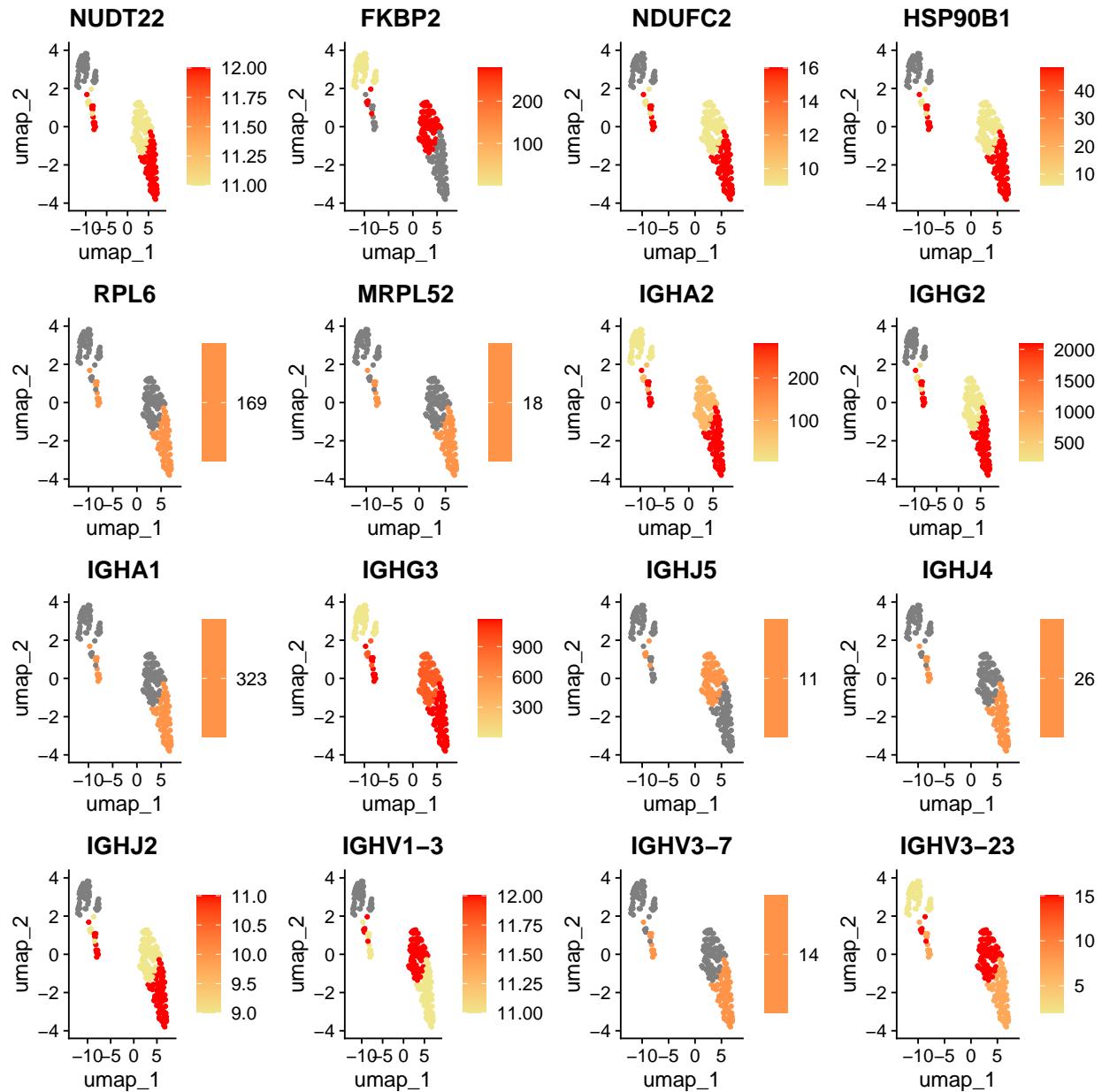
```
##  
## $`5`  
  
##  
## attr(,"class")  
## [1] "list"      "ggarrange"
```



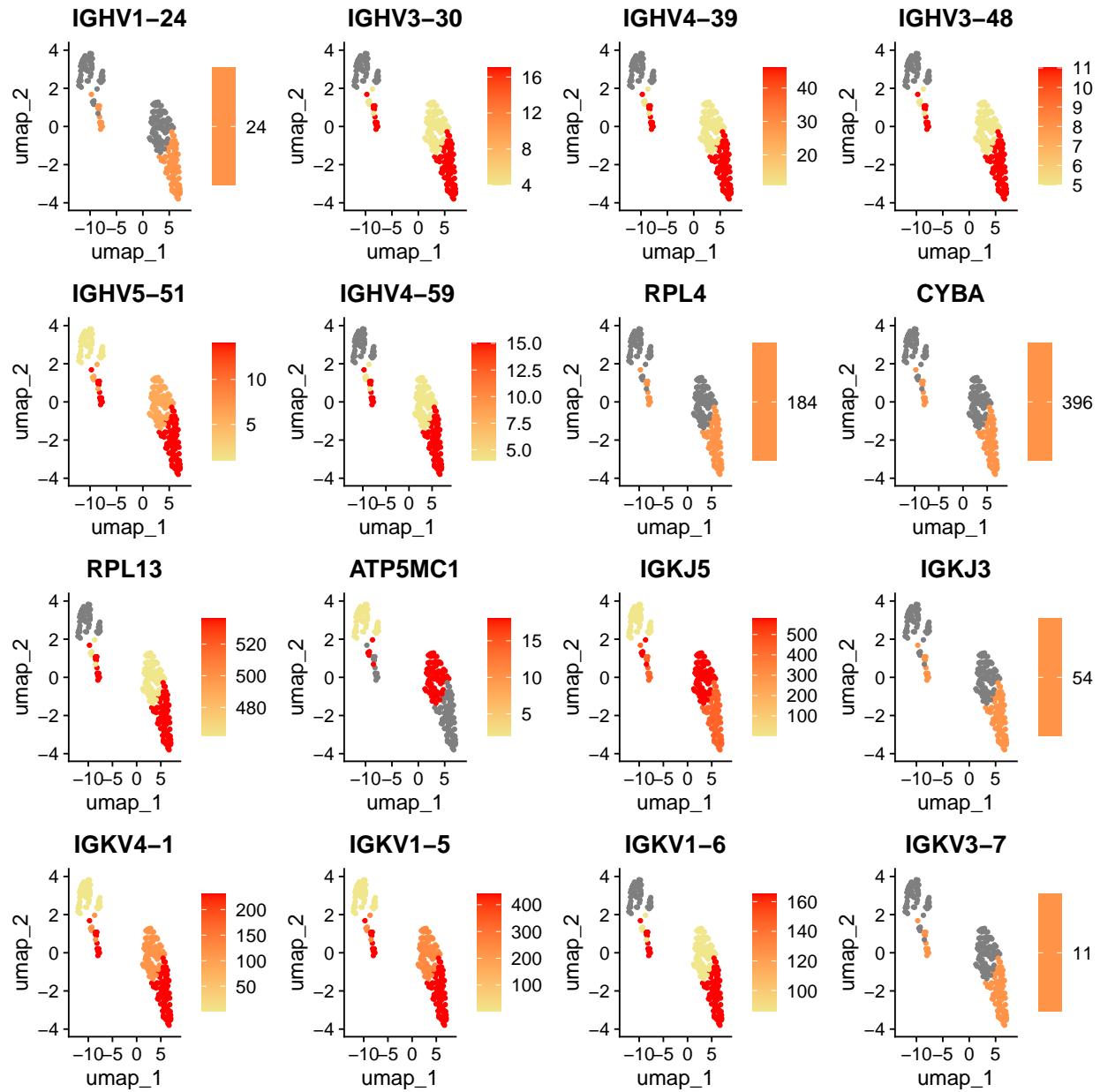
### EXT019; tumor2; MSS; PCR



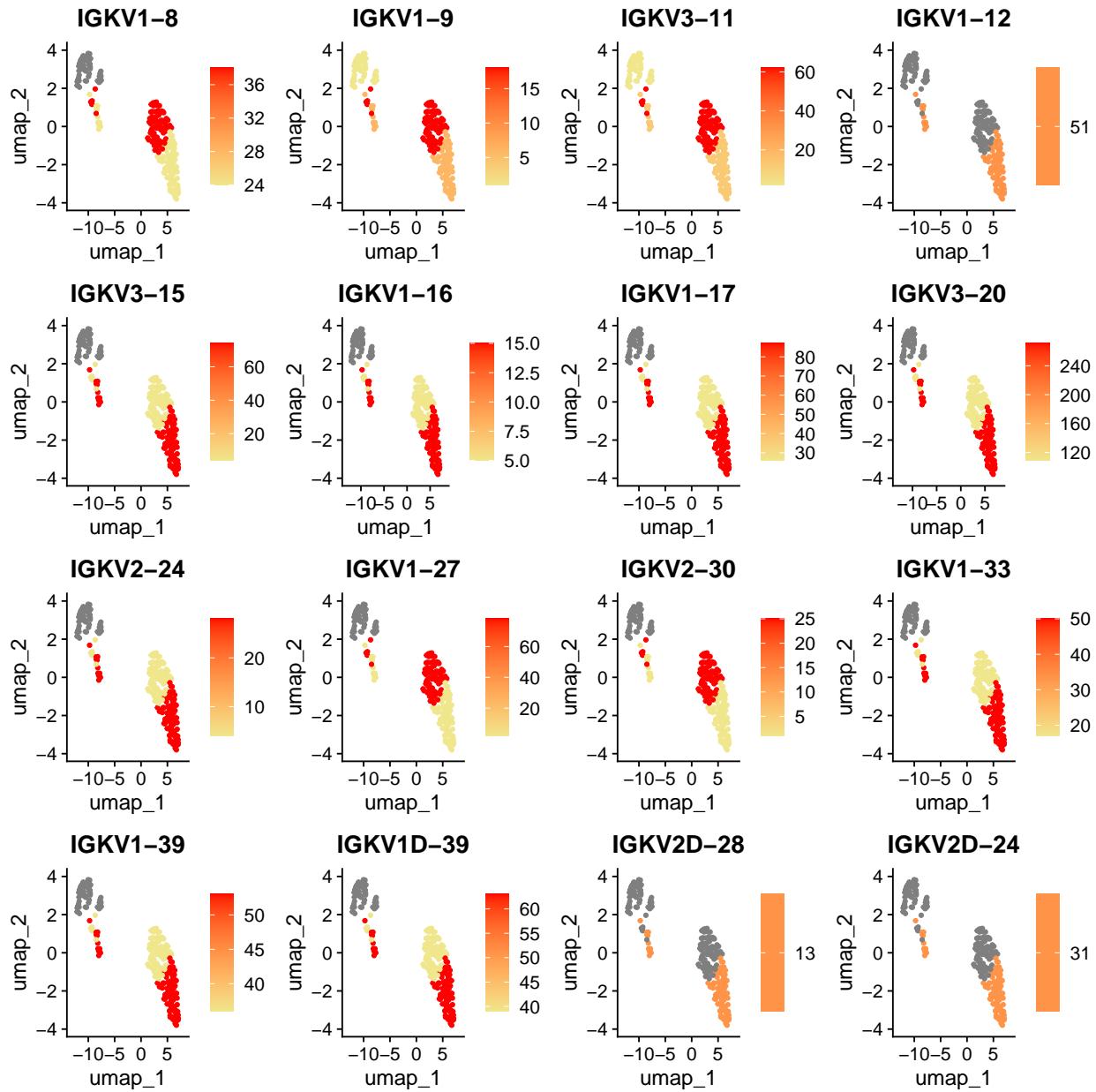
```
## $`1`
```



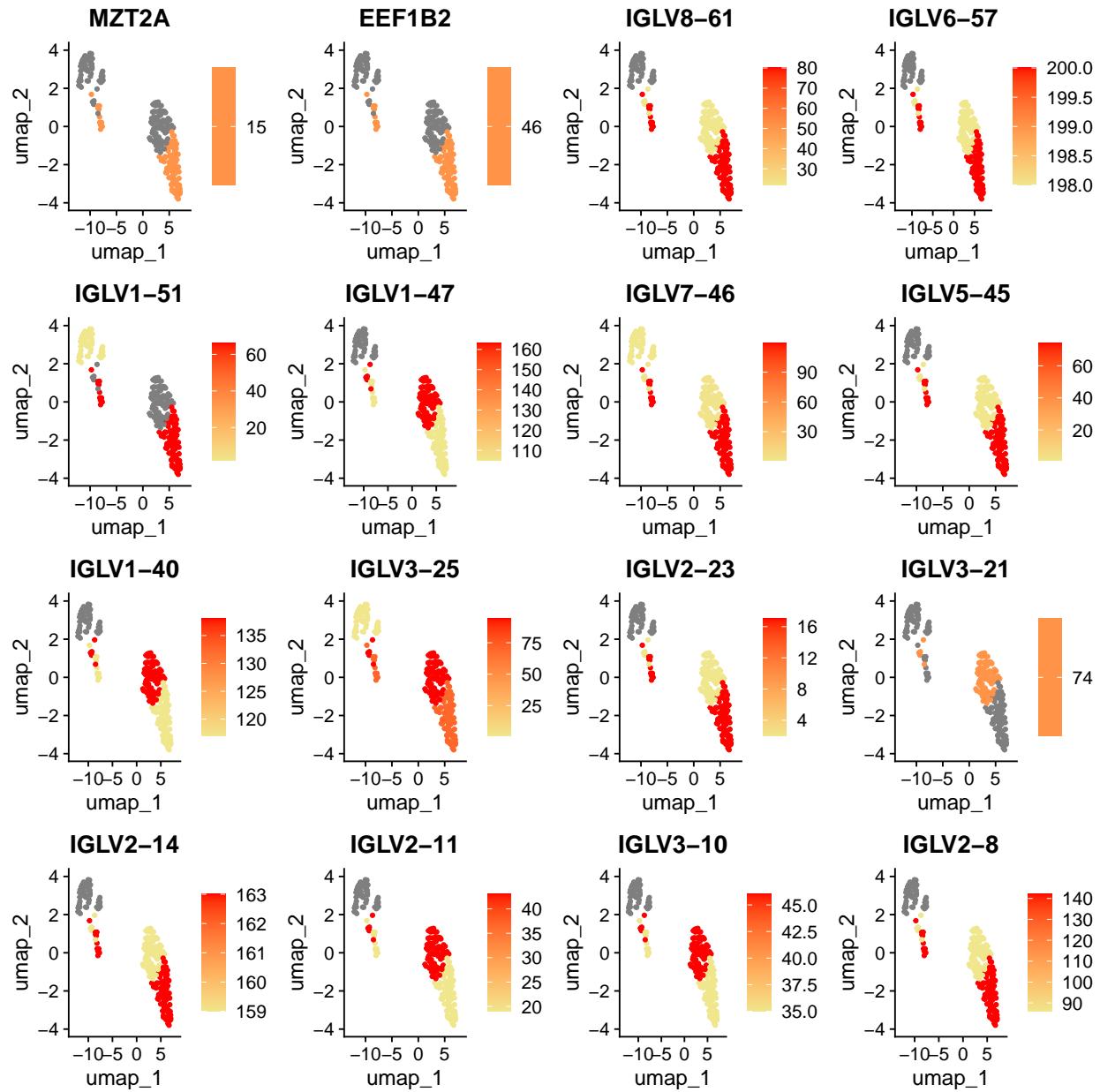
```
##  
## $^2`
```



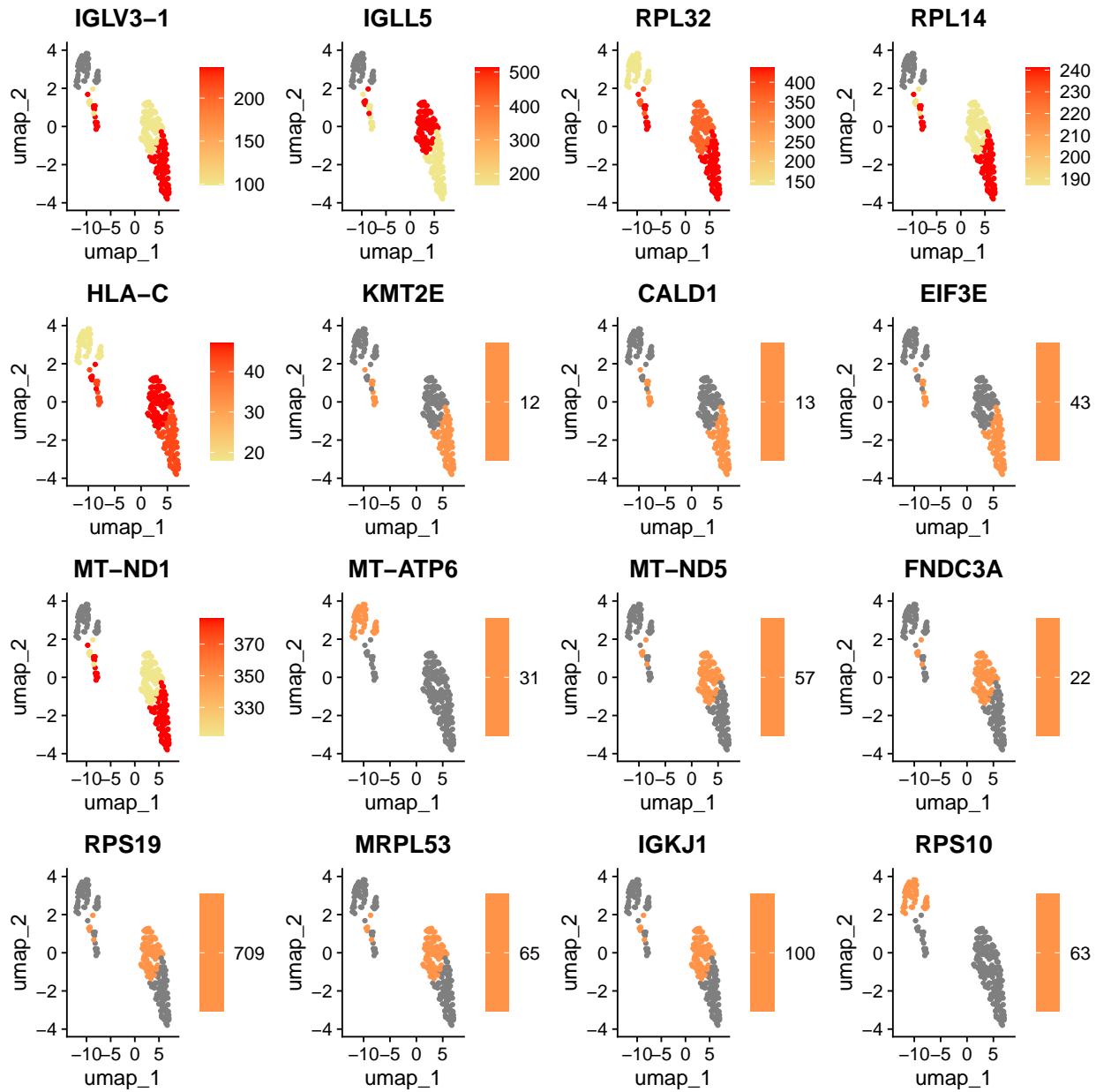
```
##  
## $`3`
```



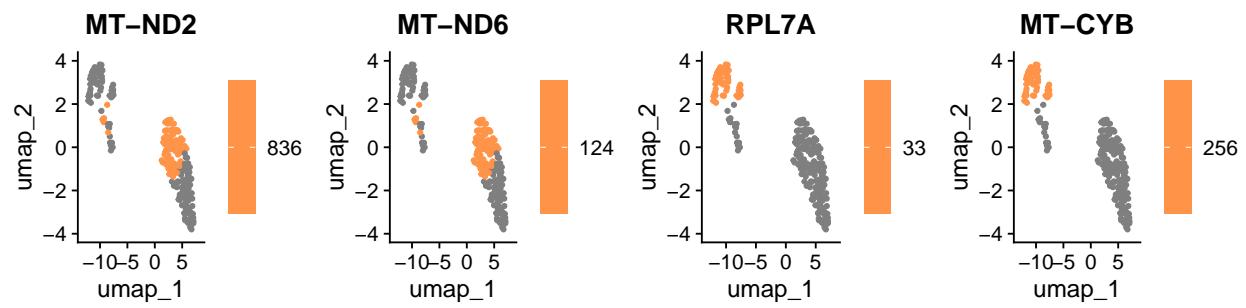
```
##  
## $`4`
```



```
##  
## $`5`
```

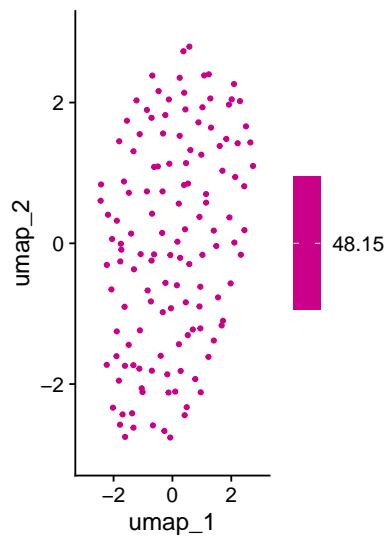


```
##  
## $`6`  
  
##  
## attr(),"class")  
## [1] "list"      "ggarrange"
```

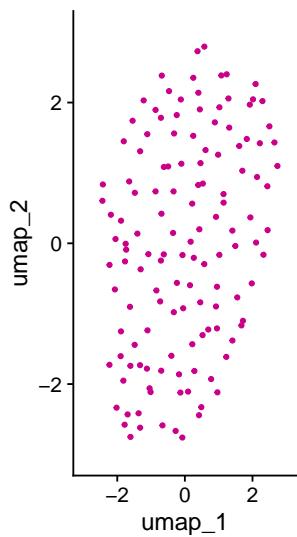


### EXT026; normal; MSS; PCR

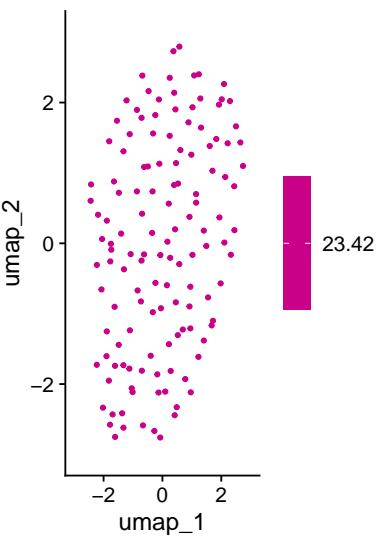
**MSIsensor2 (40.57 overall)**



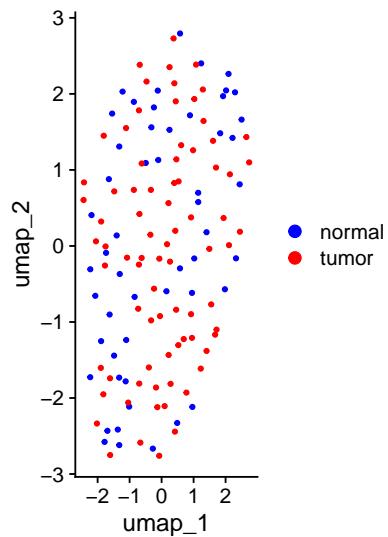
**mSINGS (24.94 overall)**



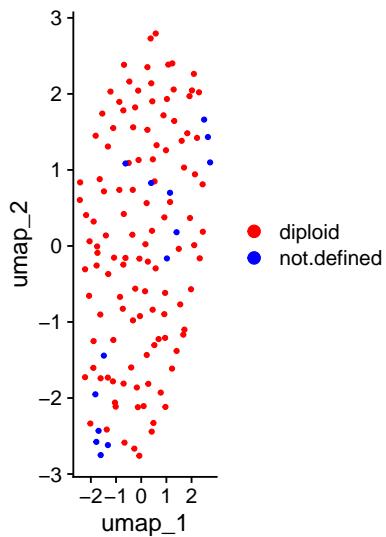
**MSIsensor-pro (19.72 overall)**



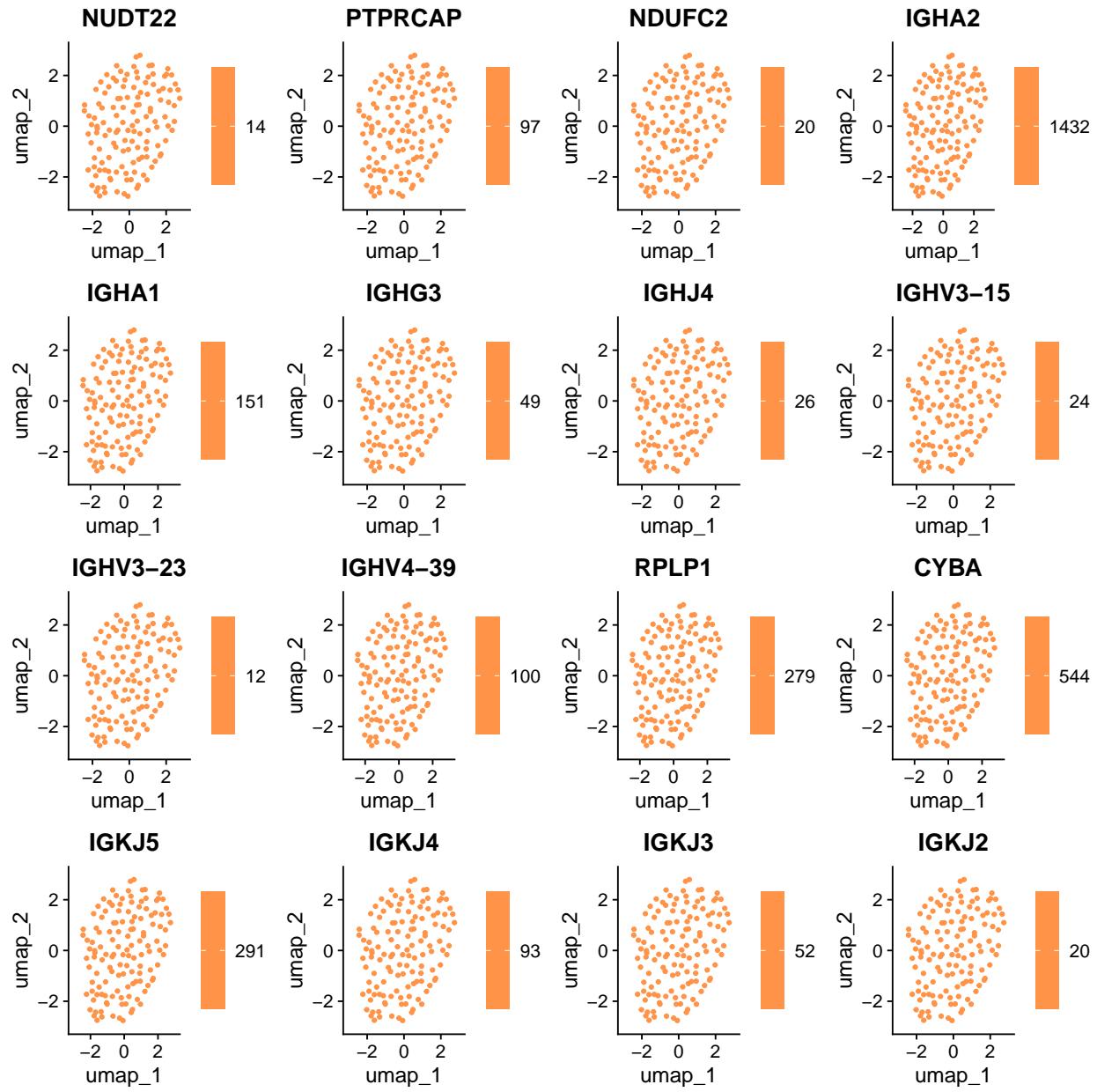
**Numbat**



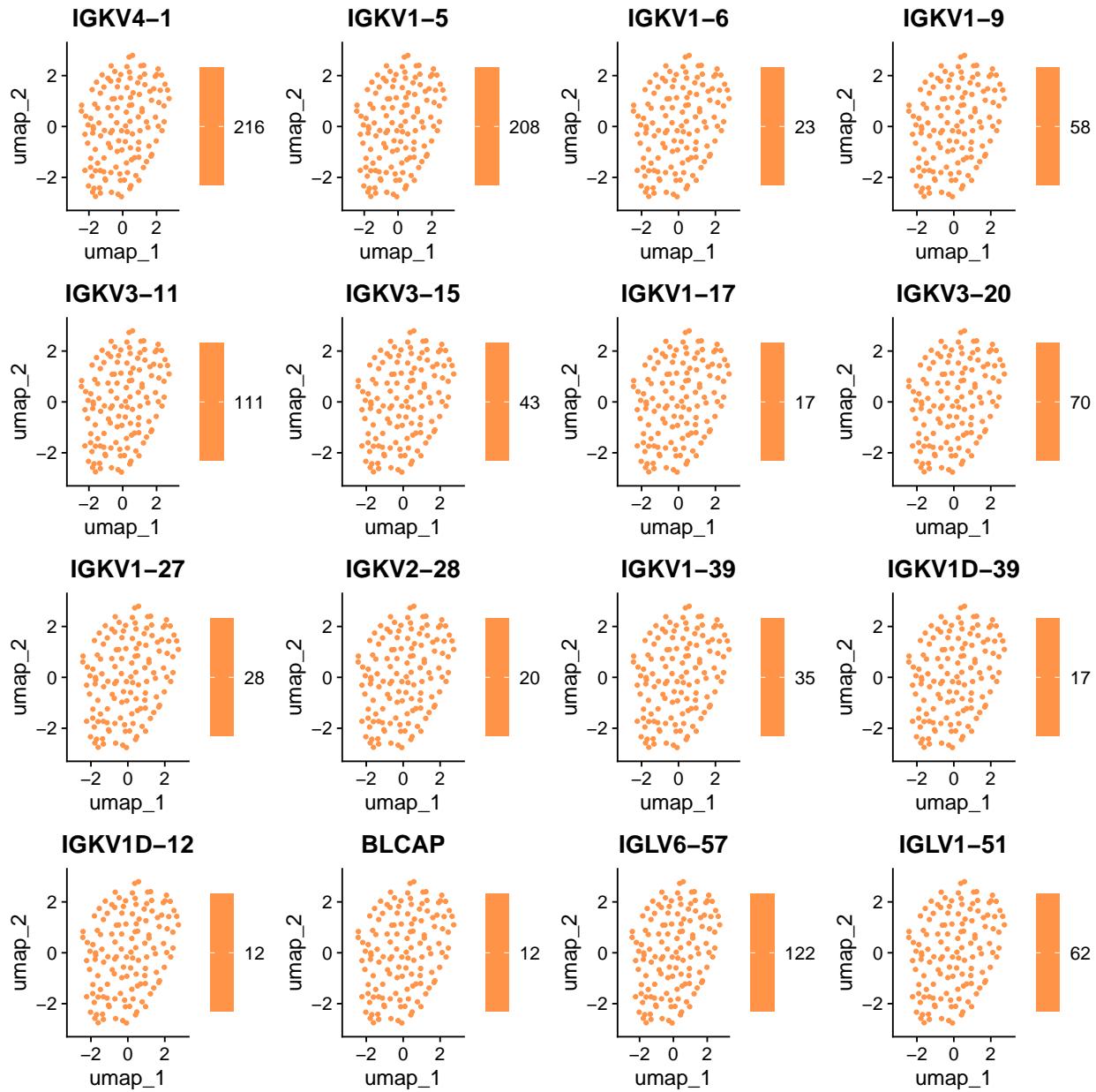
**Copykat**



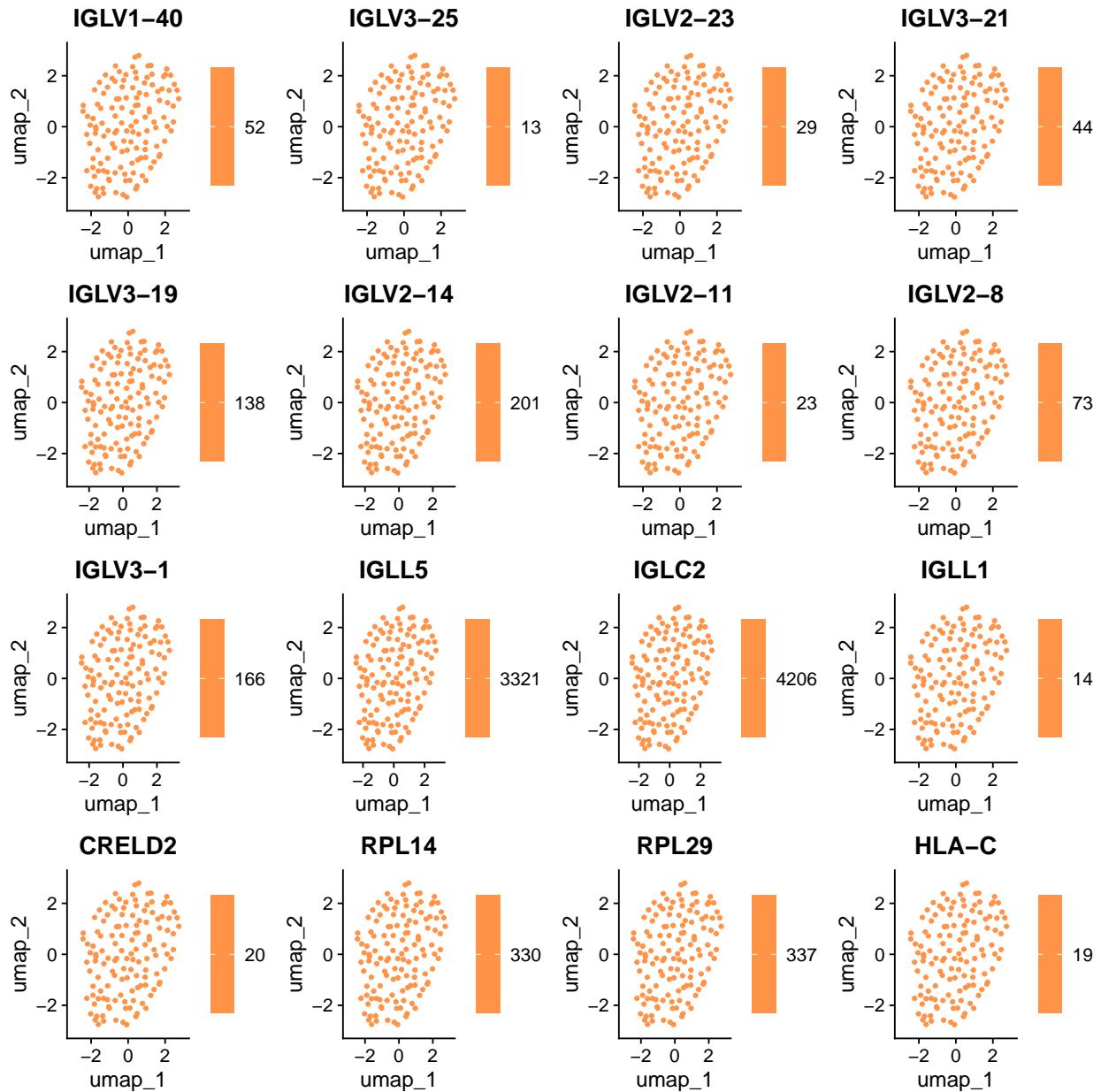
```
## $`1`
```



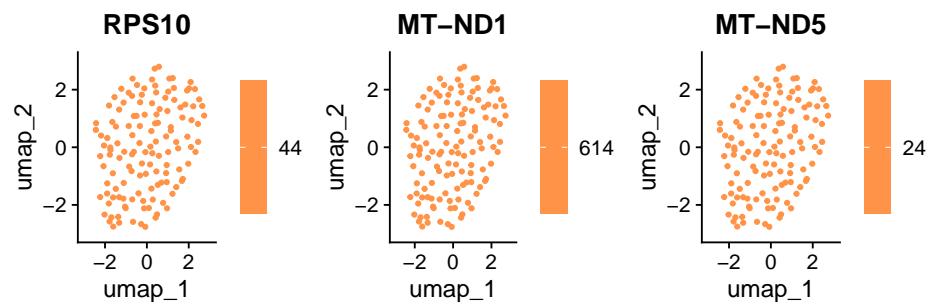
```
##  
## $^2`
```



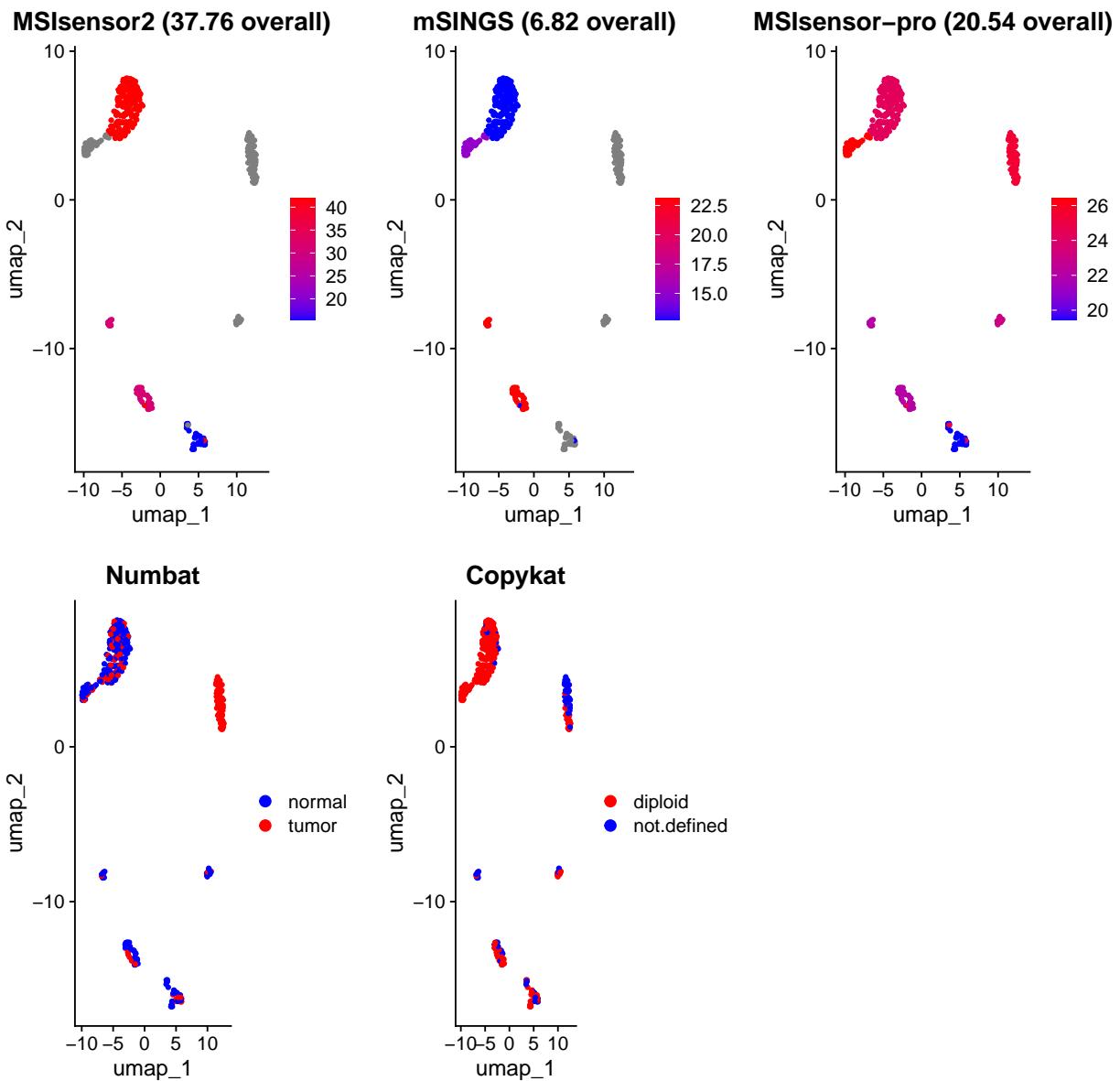
```
##  
## $`3`
```



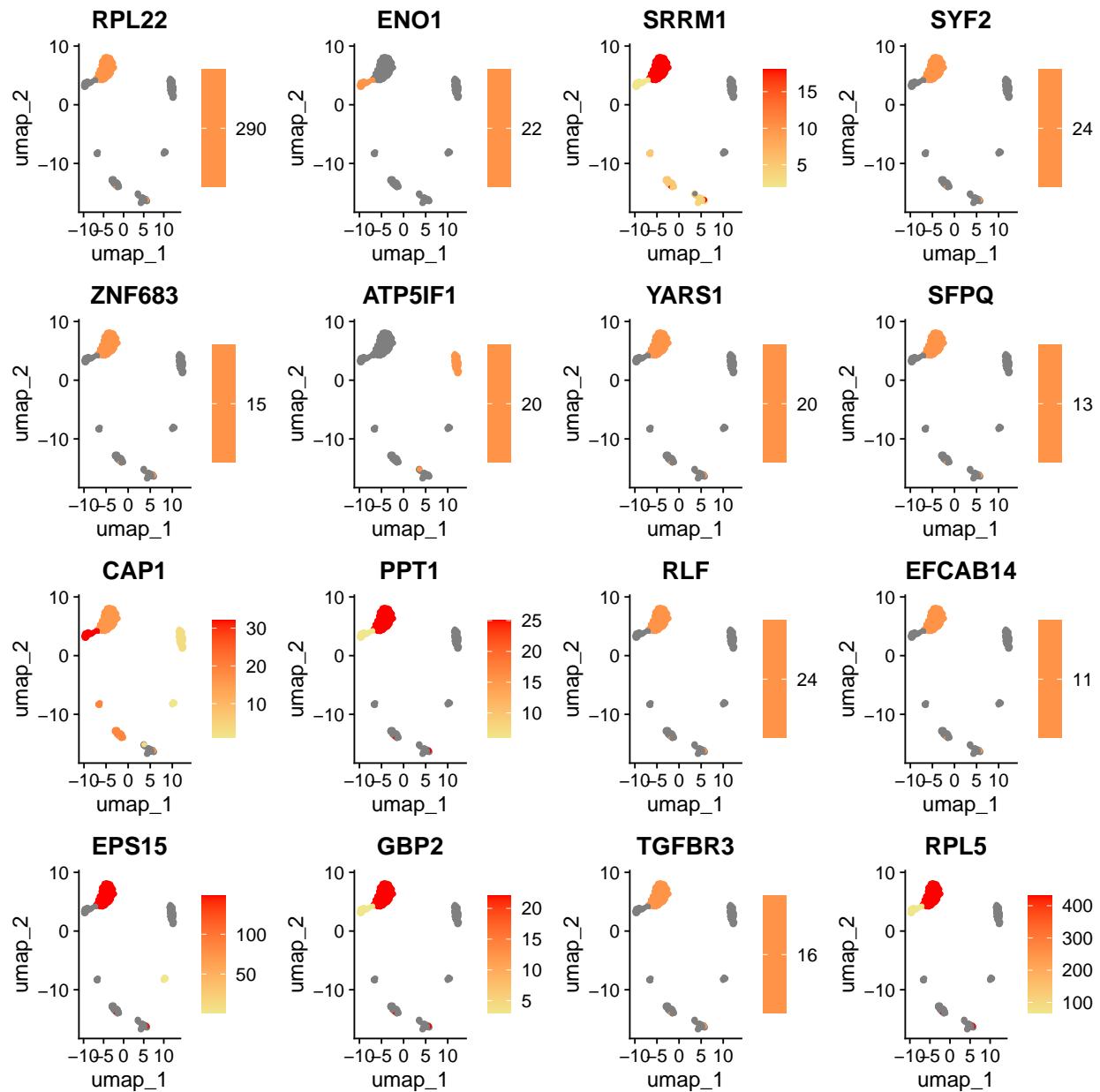
```
##  
## $`4`  
  
##  
## attr(,"class")  
## [1] "list"      "ggarrange"
```



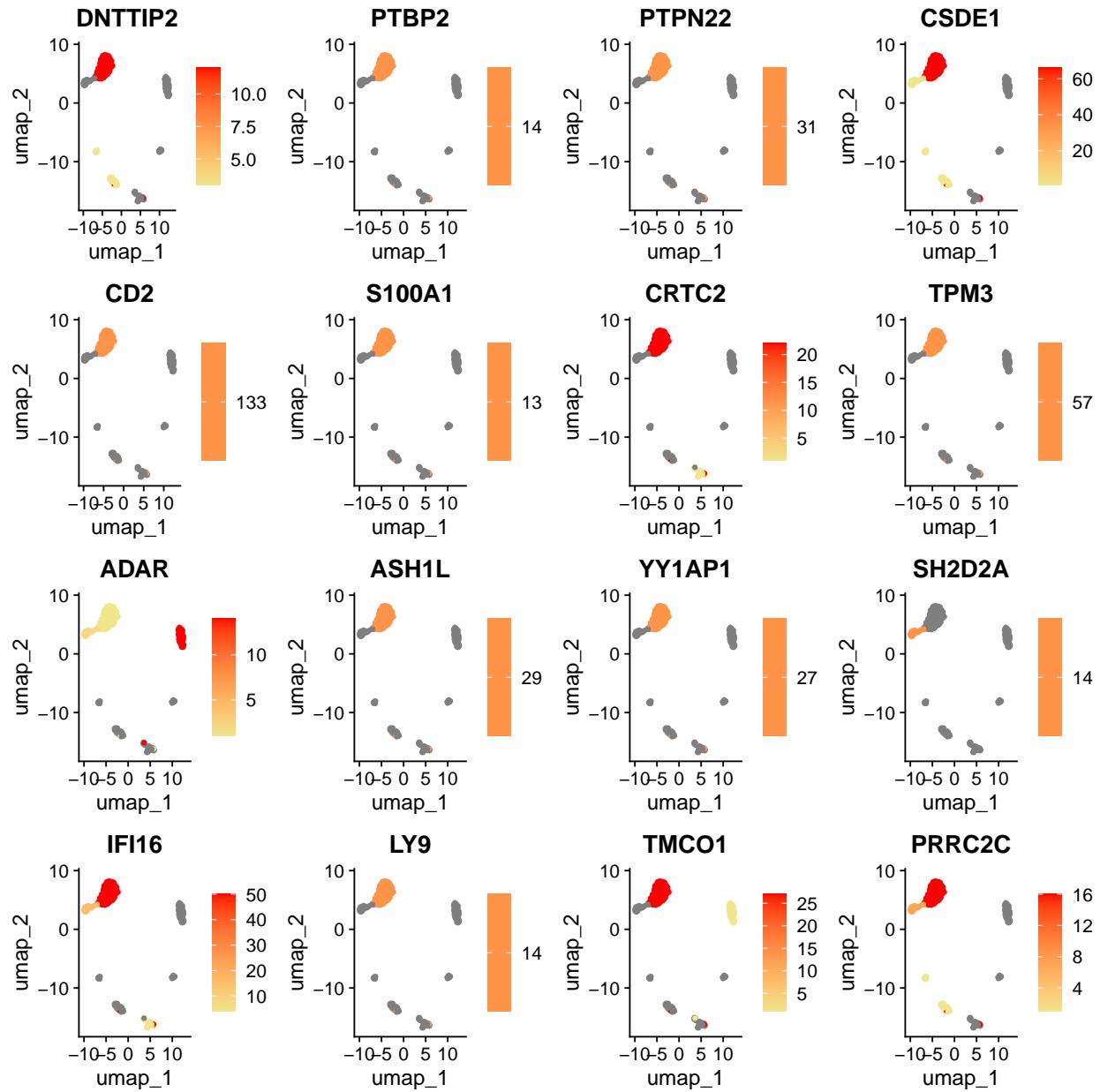
**XHC102-SI-GA-C11; Core1; MSS; IHC**



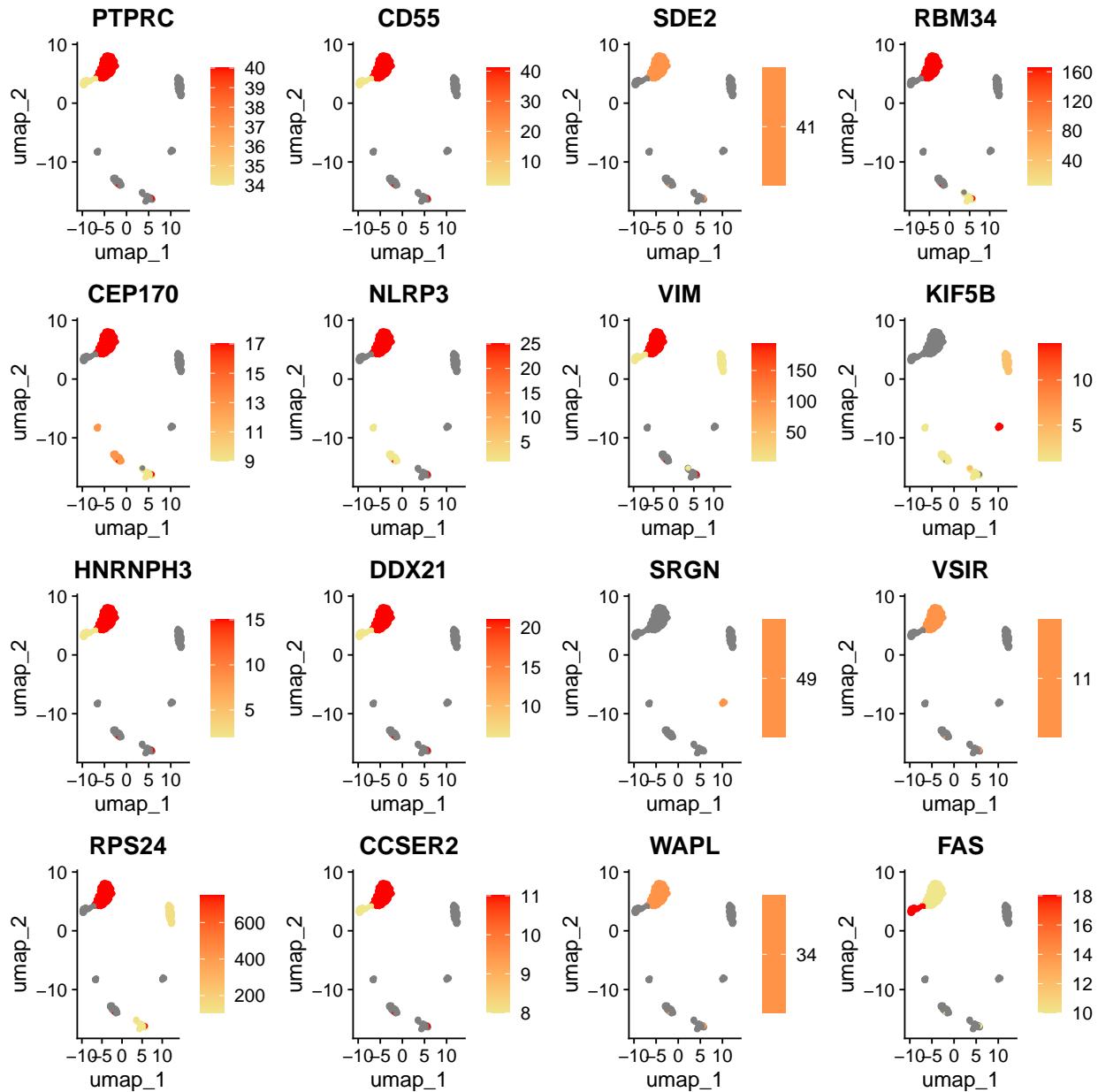
## \$`1`



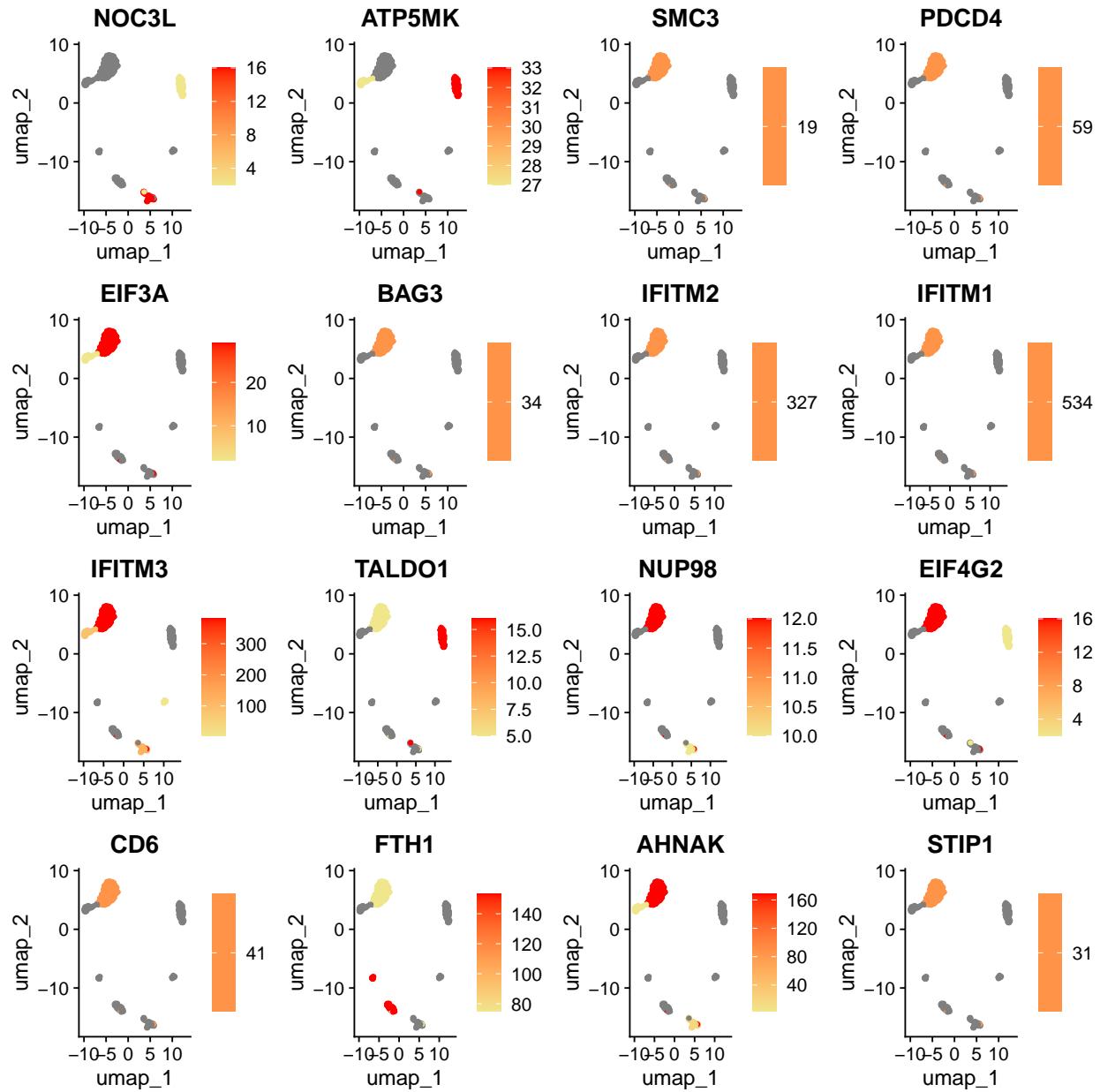
```
##  
## $^2`
```



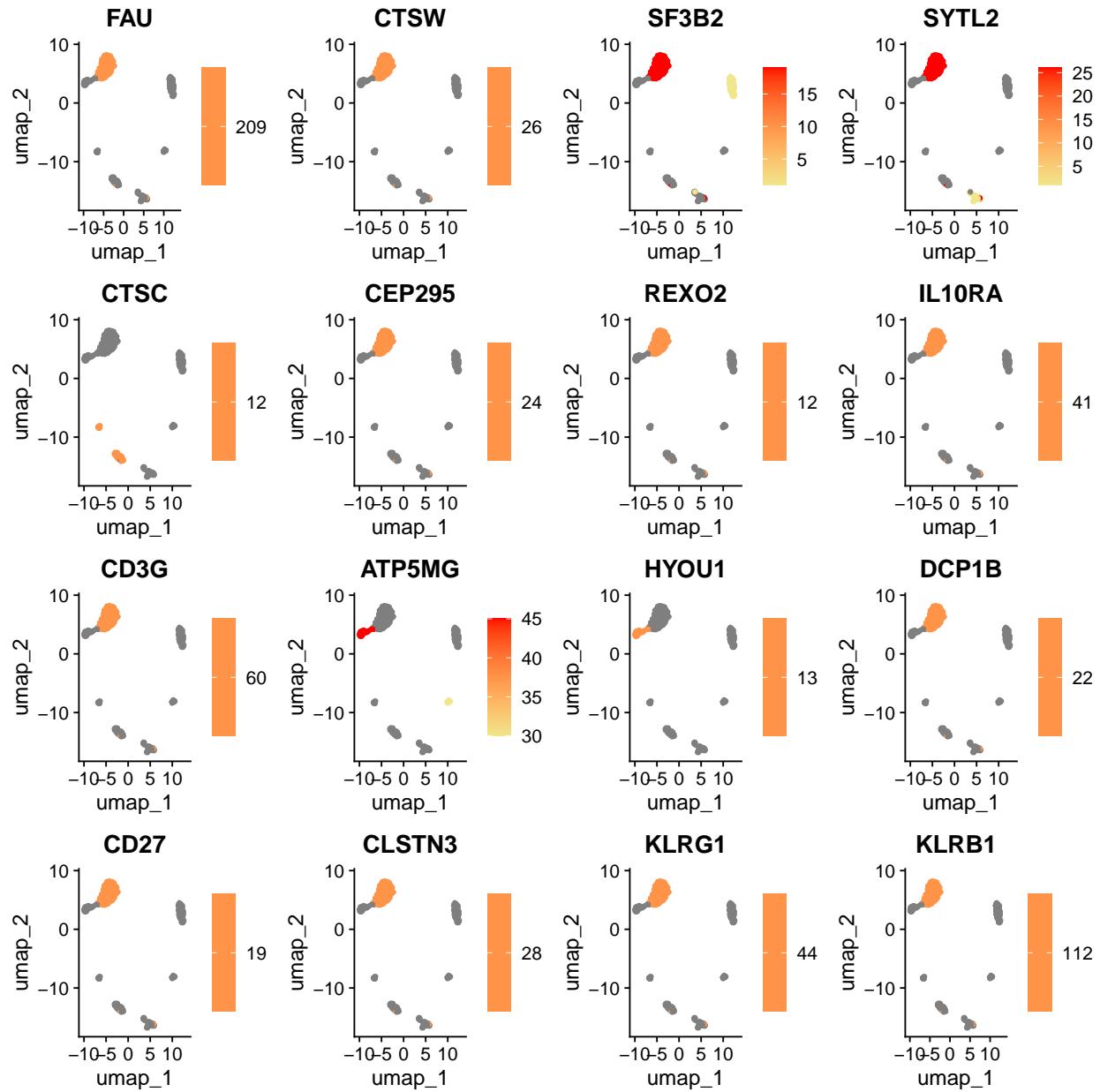
```
##  
## $`3`
```



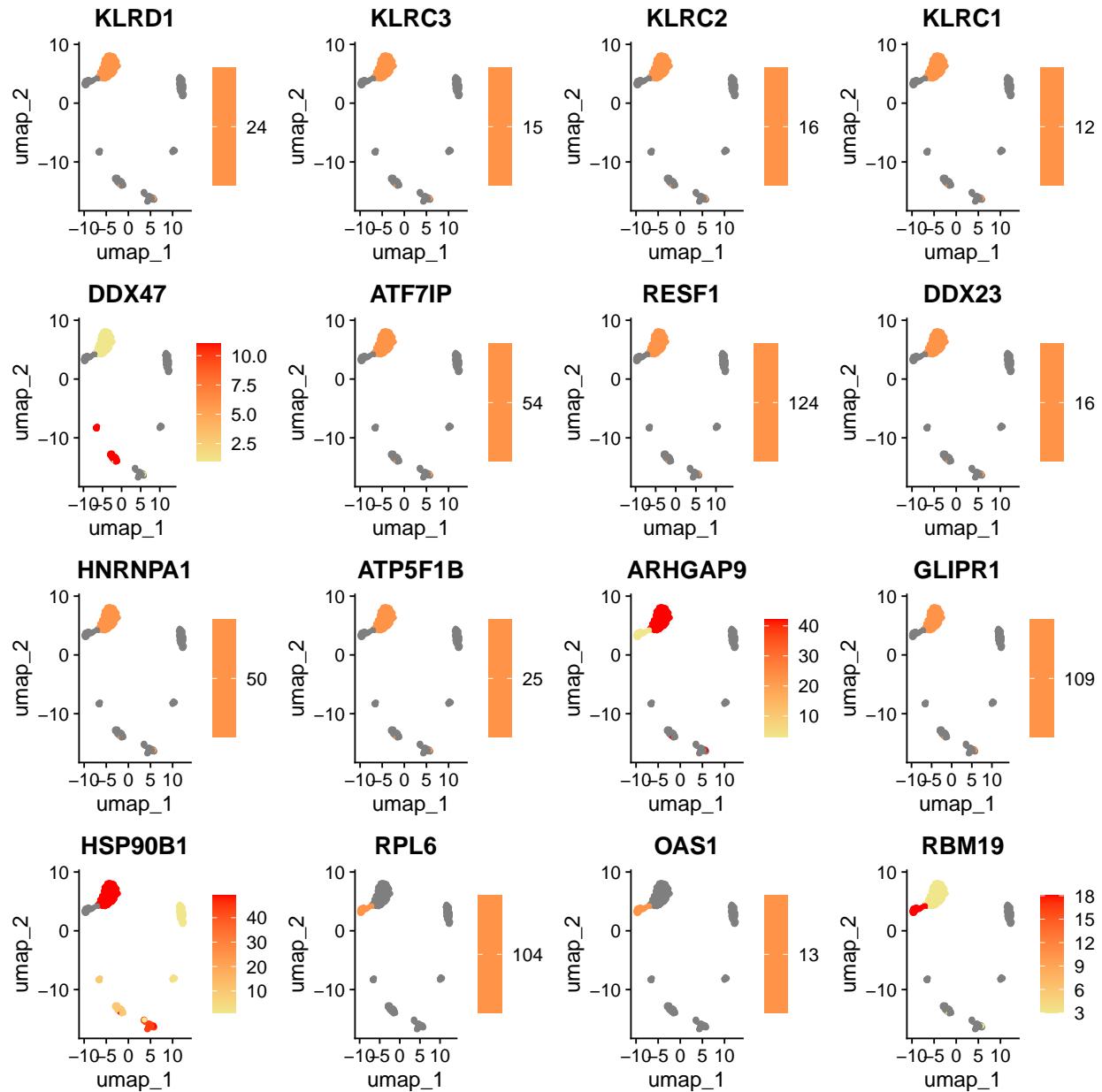
```
##  
## $`4`
```



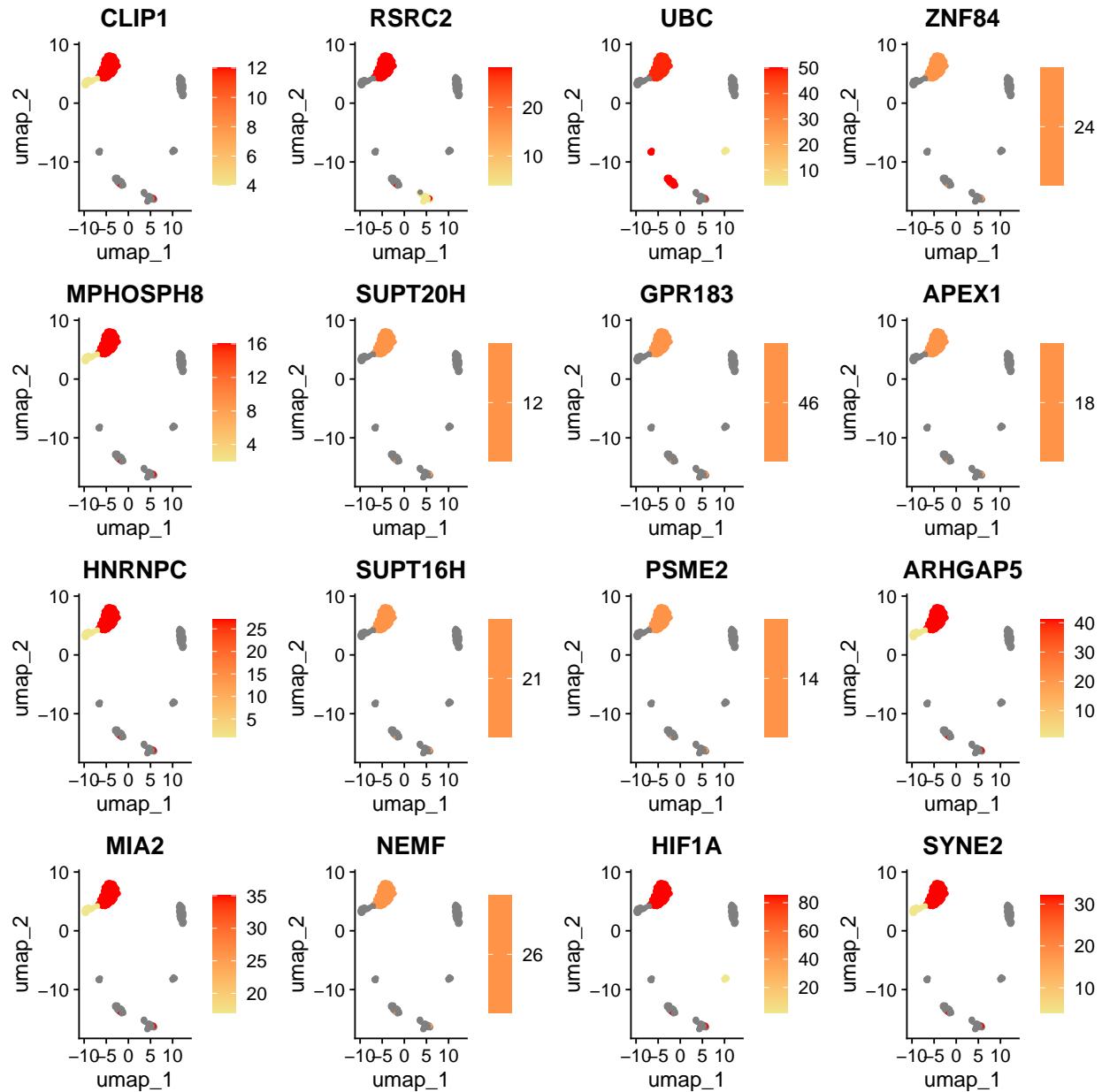
```
##  
## $`5`
```



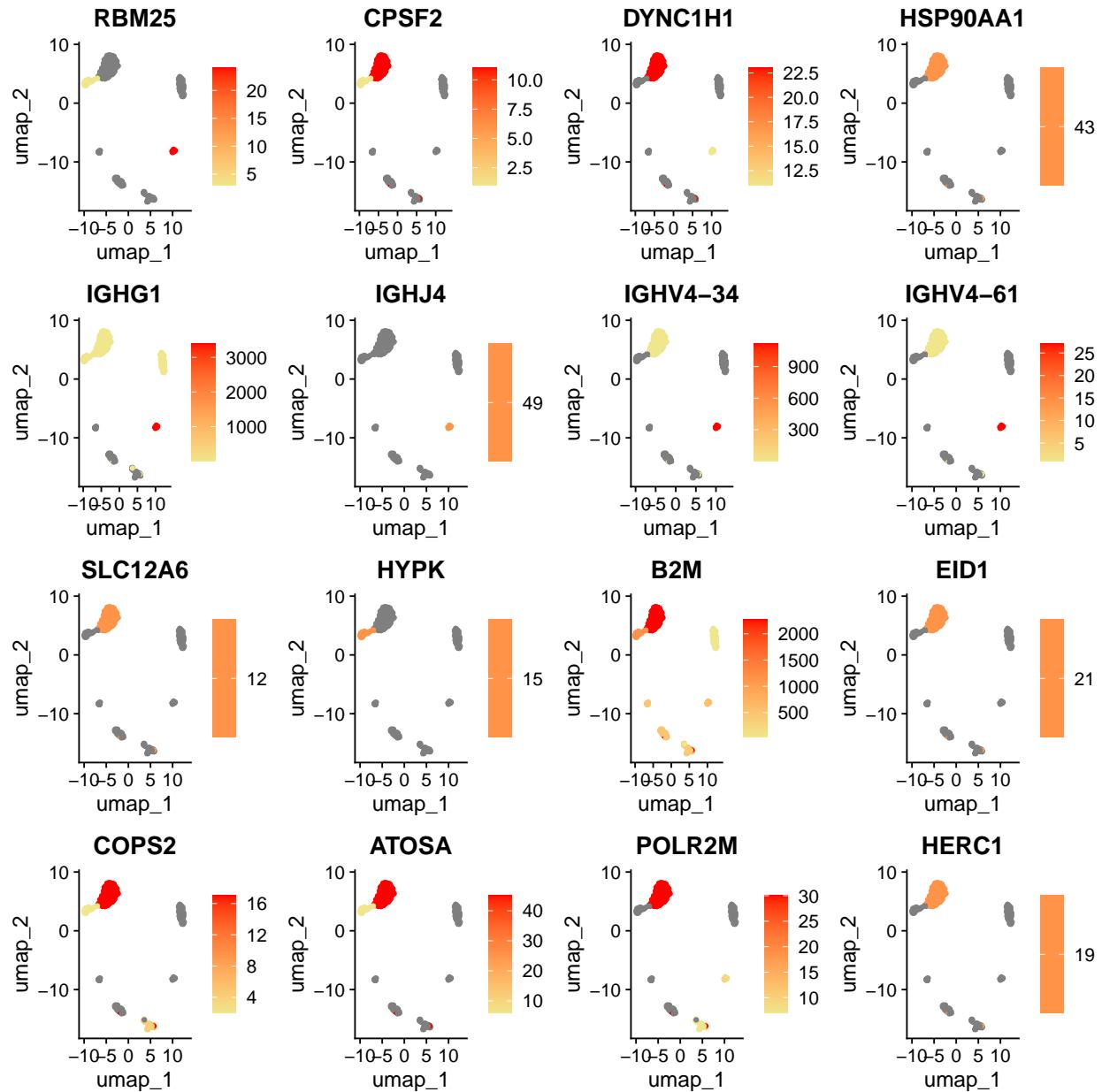
```
##  
## $`6`
```



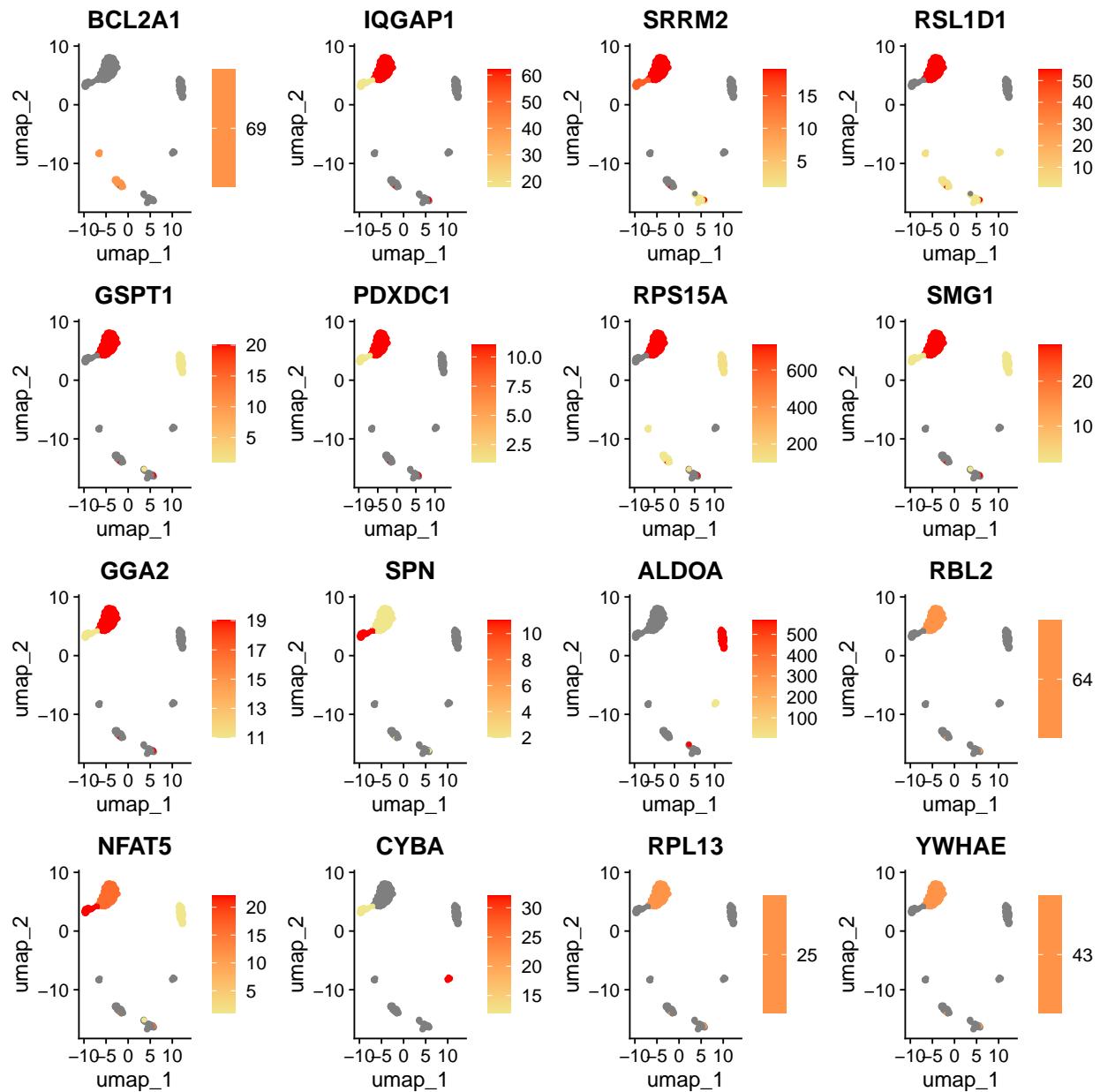
```
##  
## $`7`
```



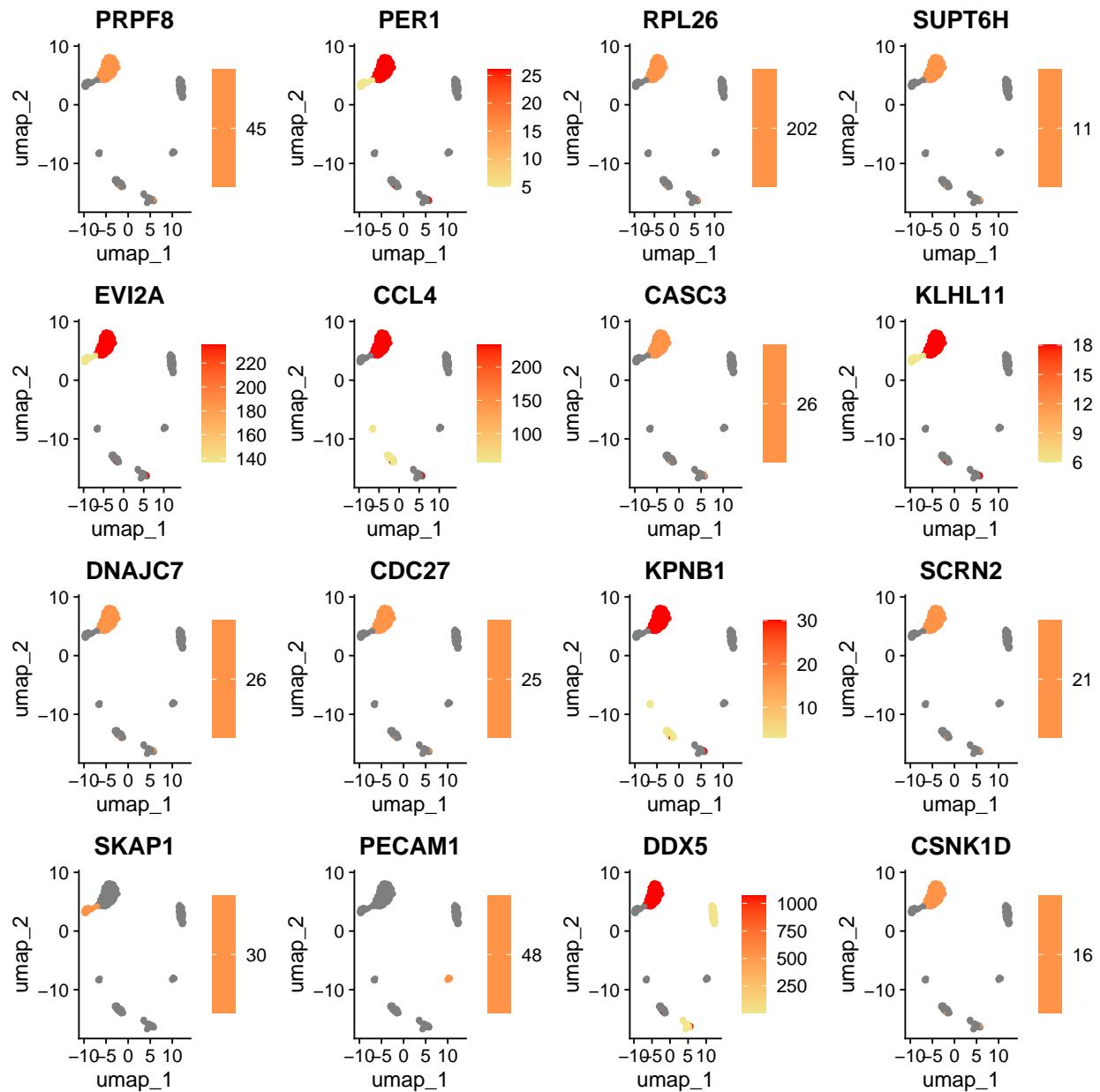
```
##  
## $`8`
```



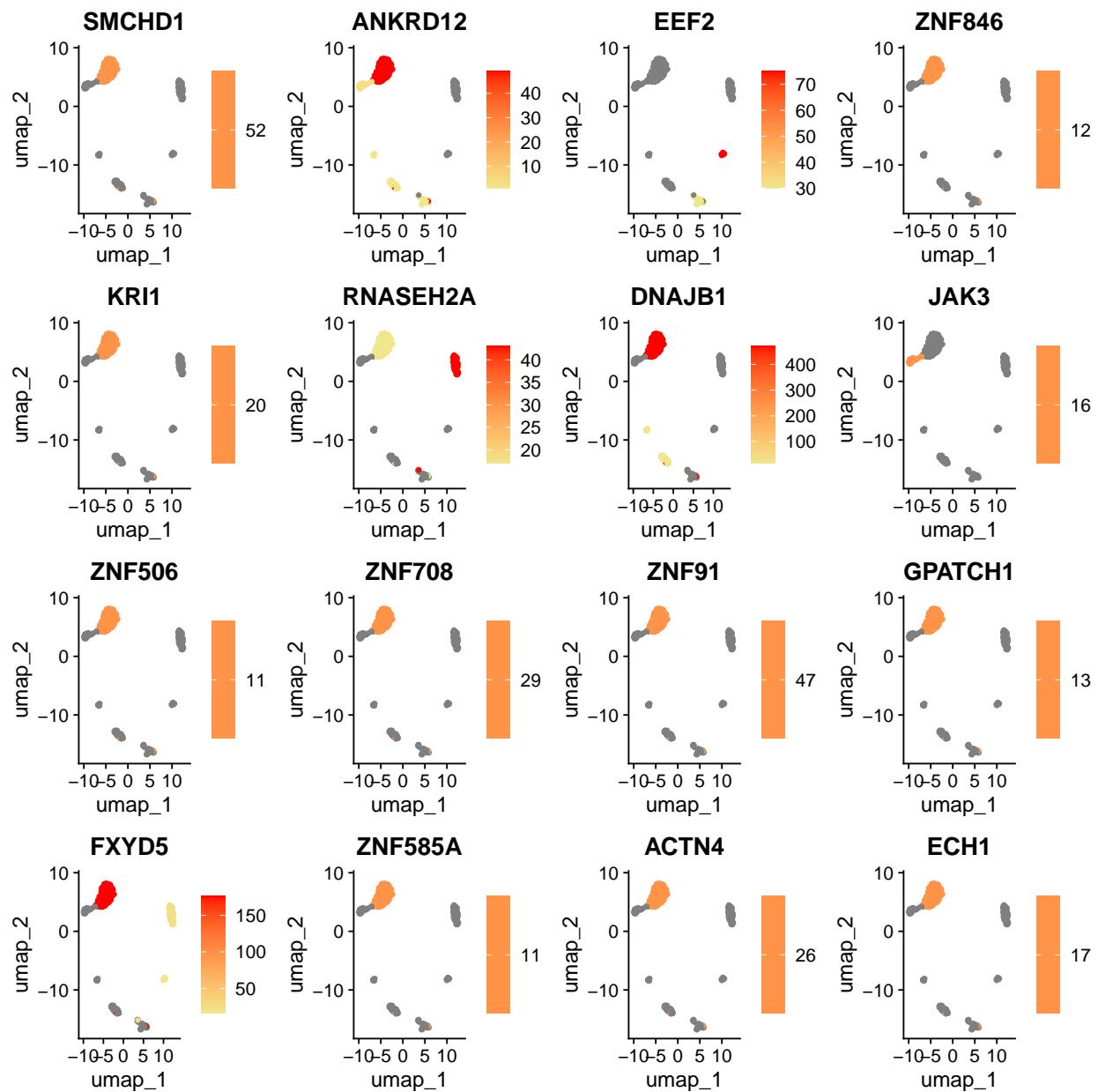
```
##  
## $`9`
```

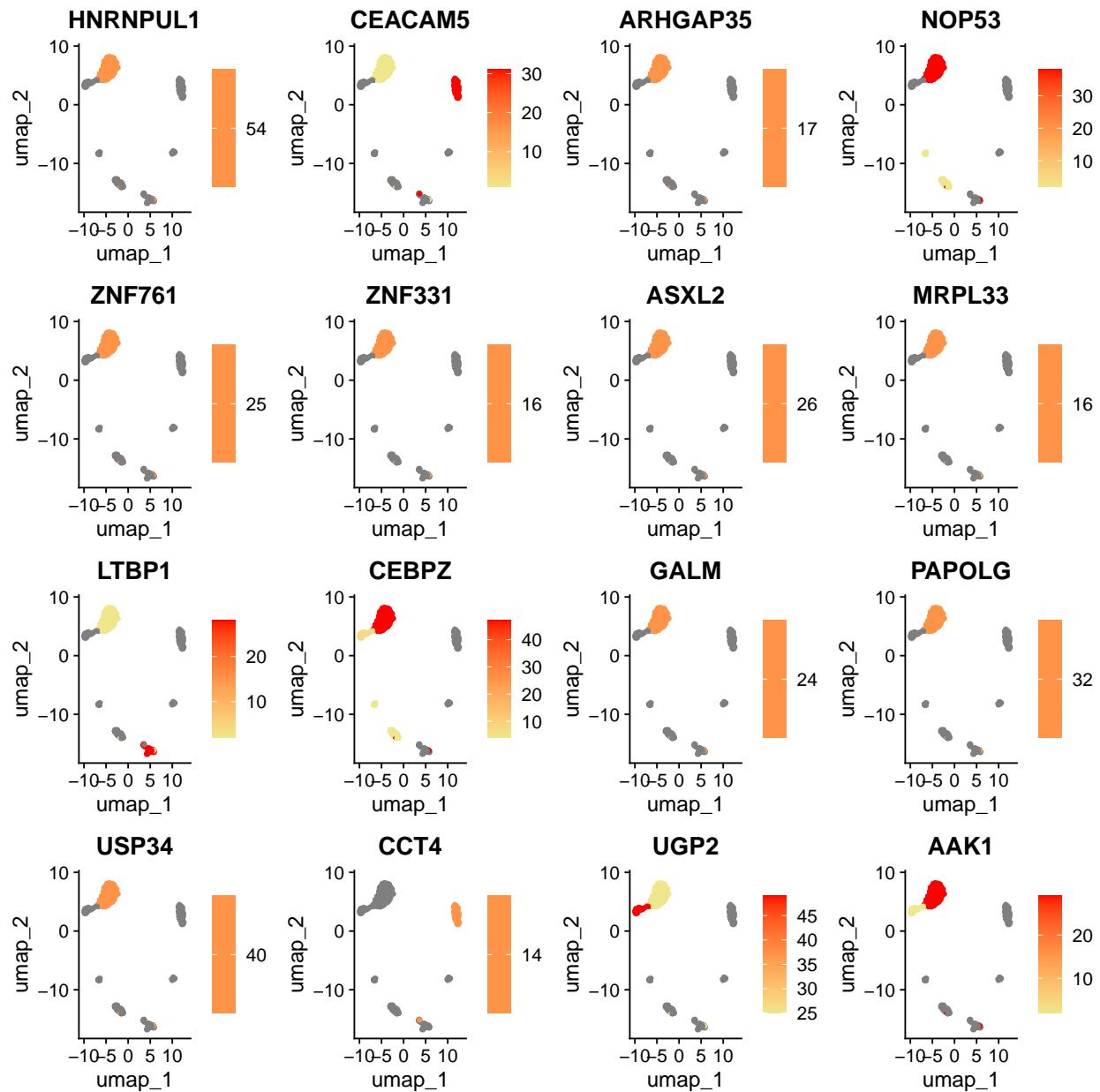


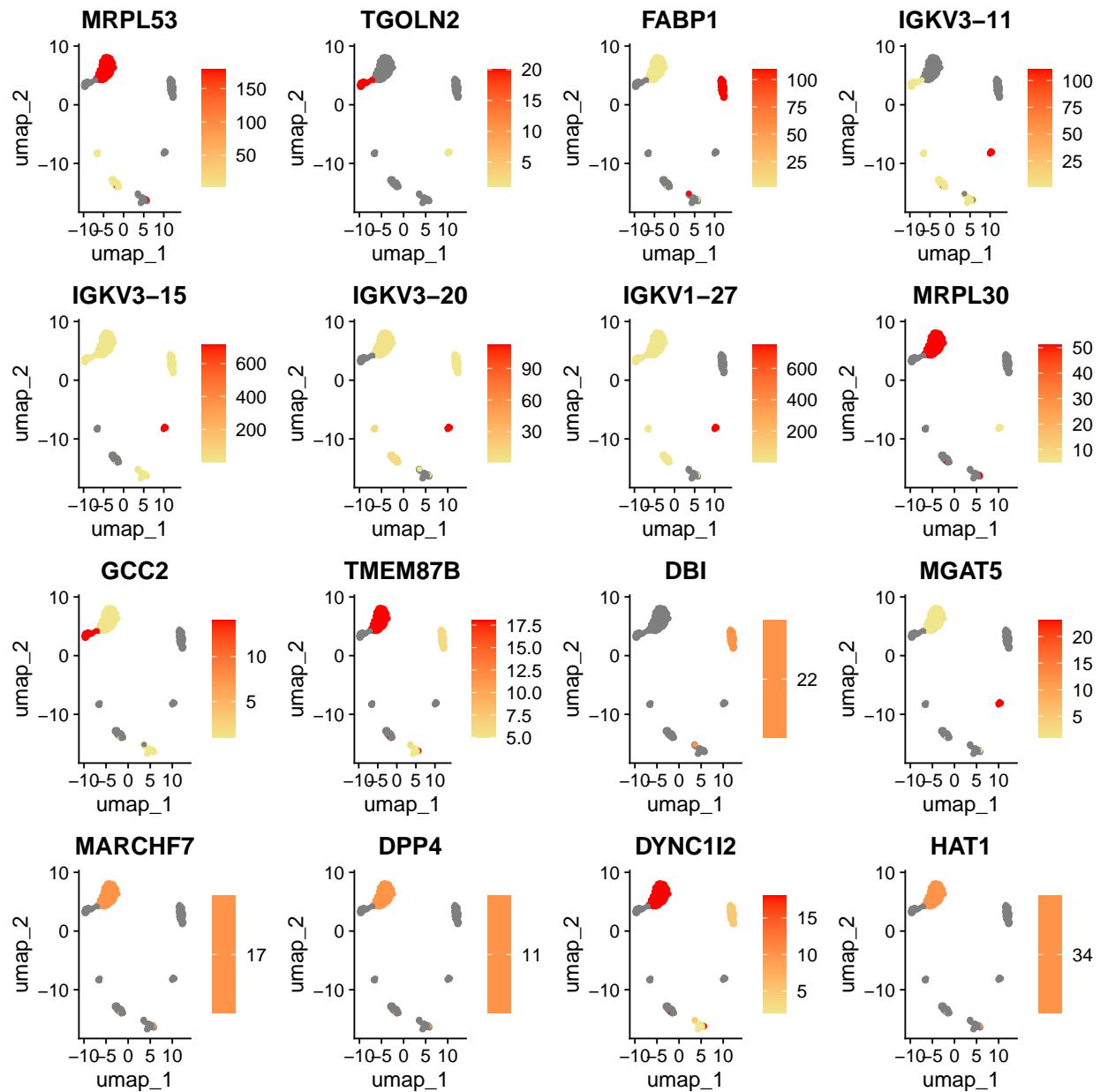
```
##  
## $`10`
```



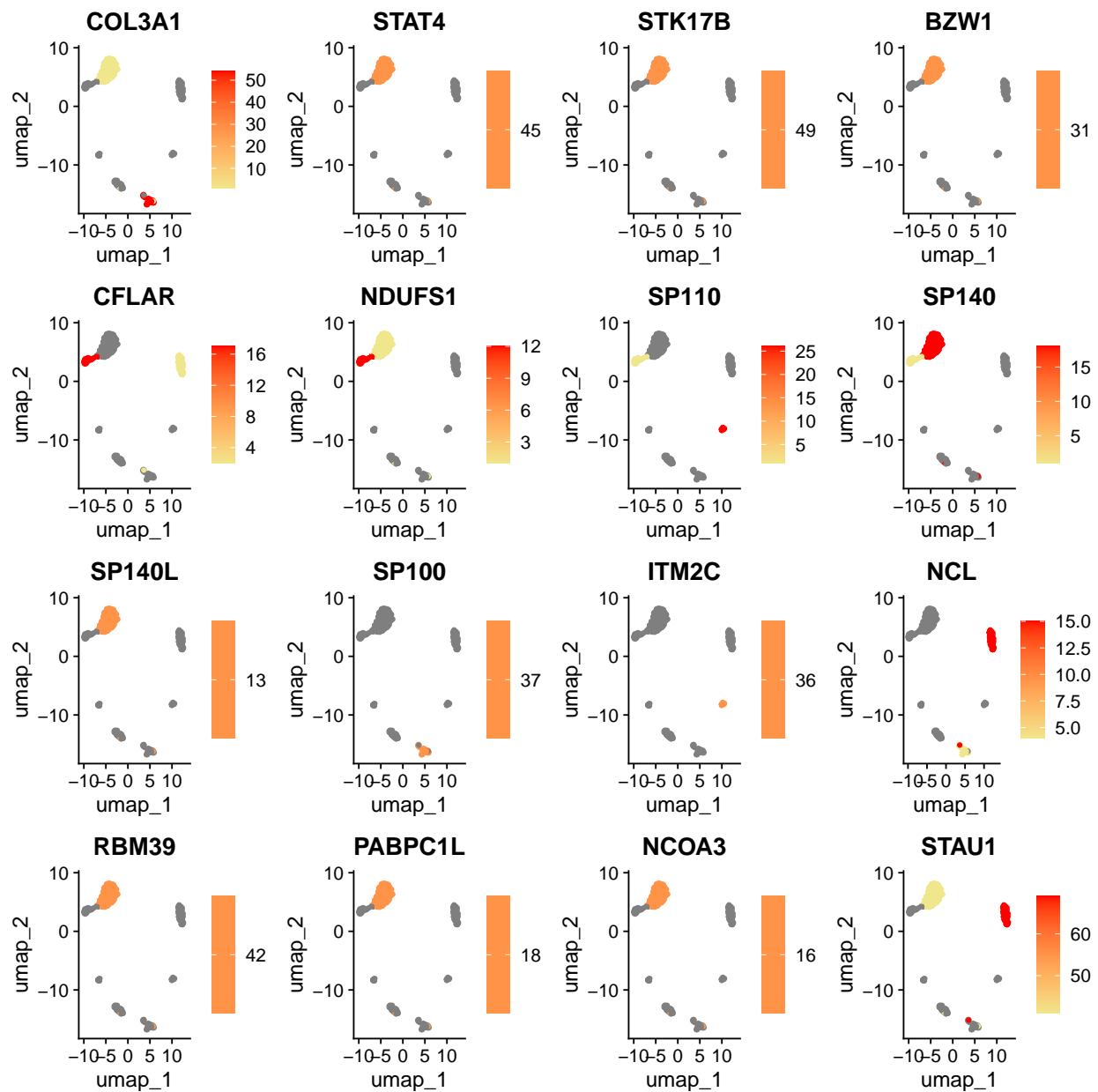
```
##  
## $`11`
```



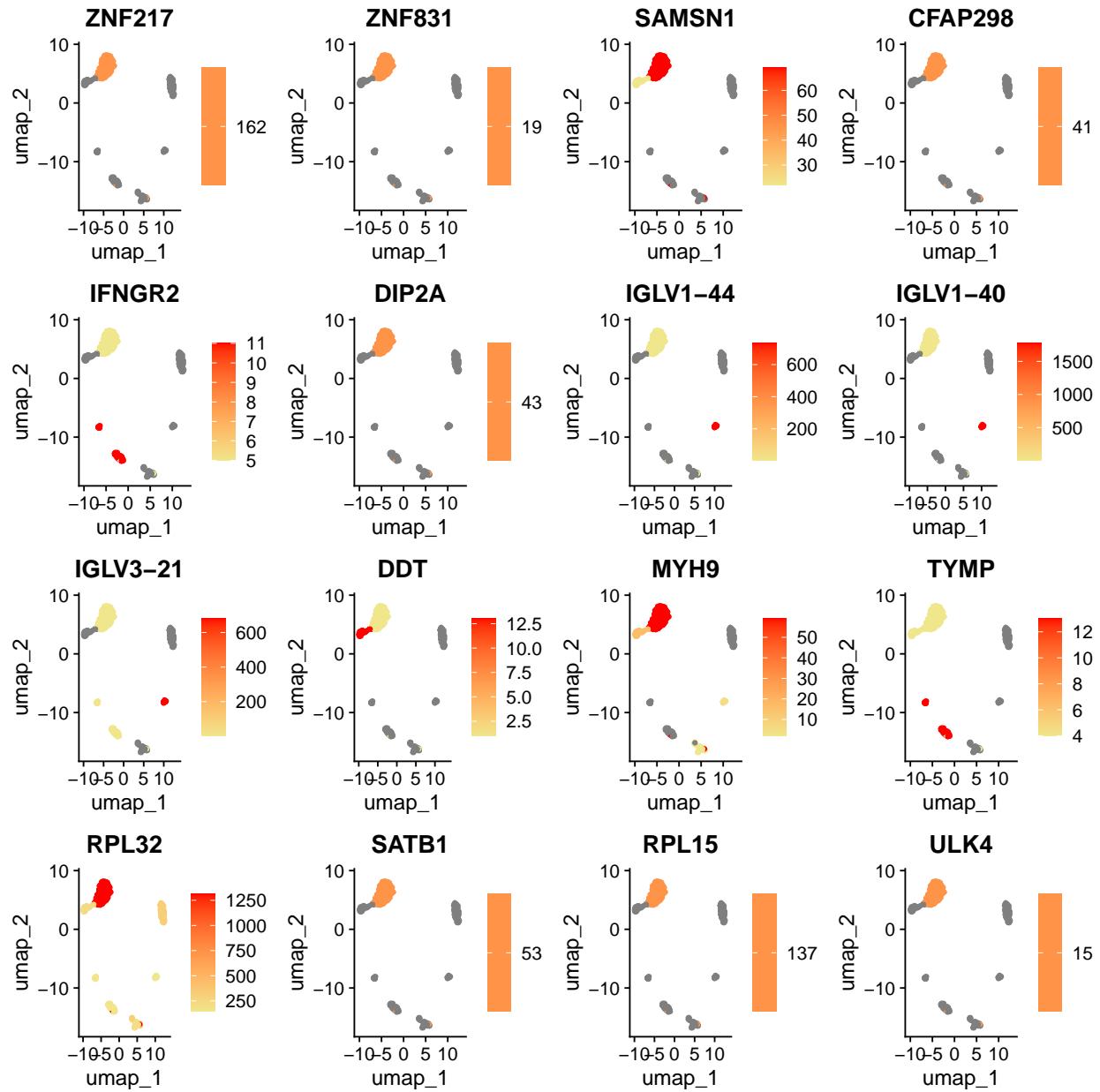




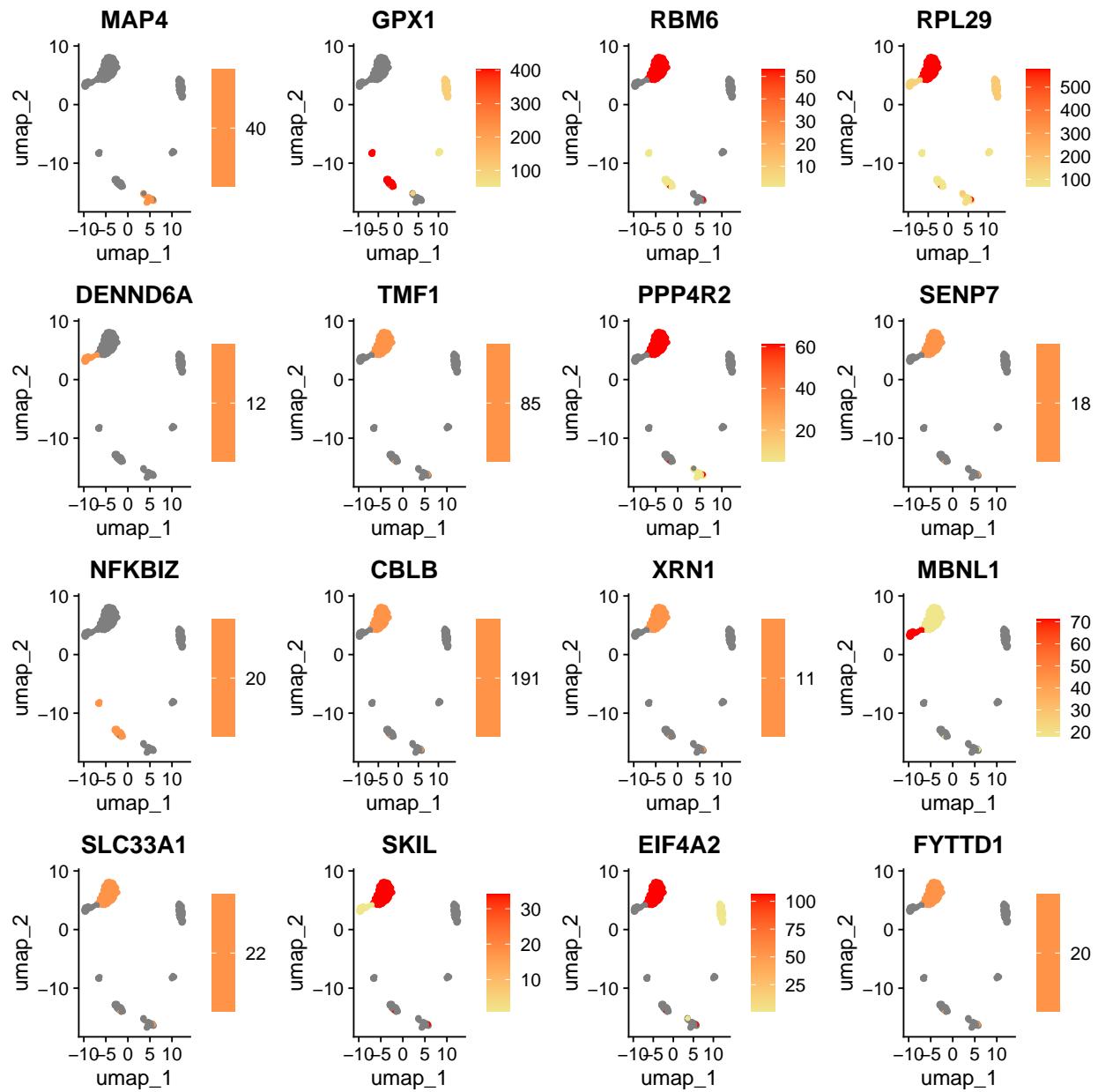
```
##  
## $`14`
```



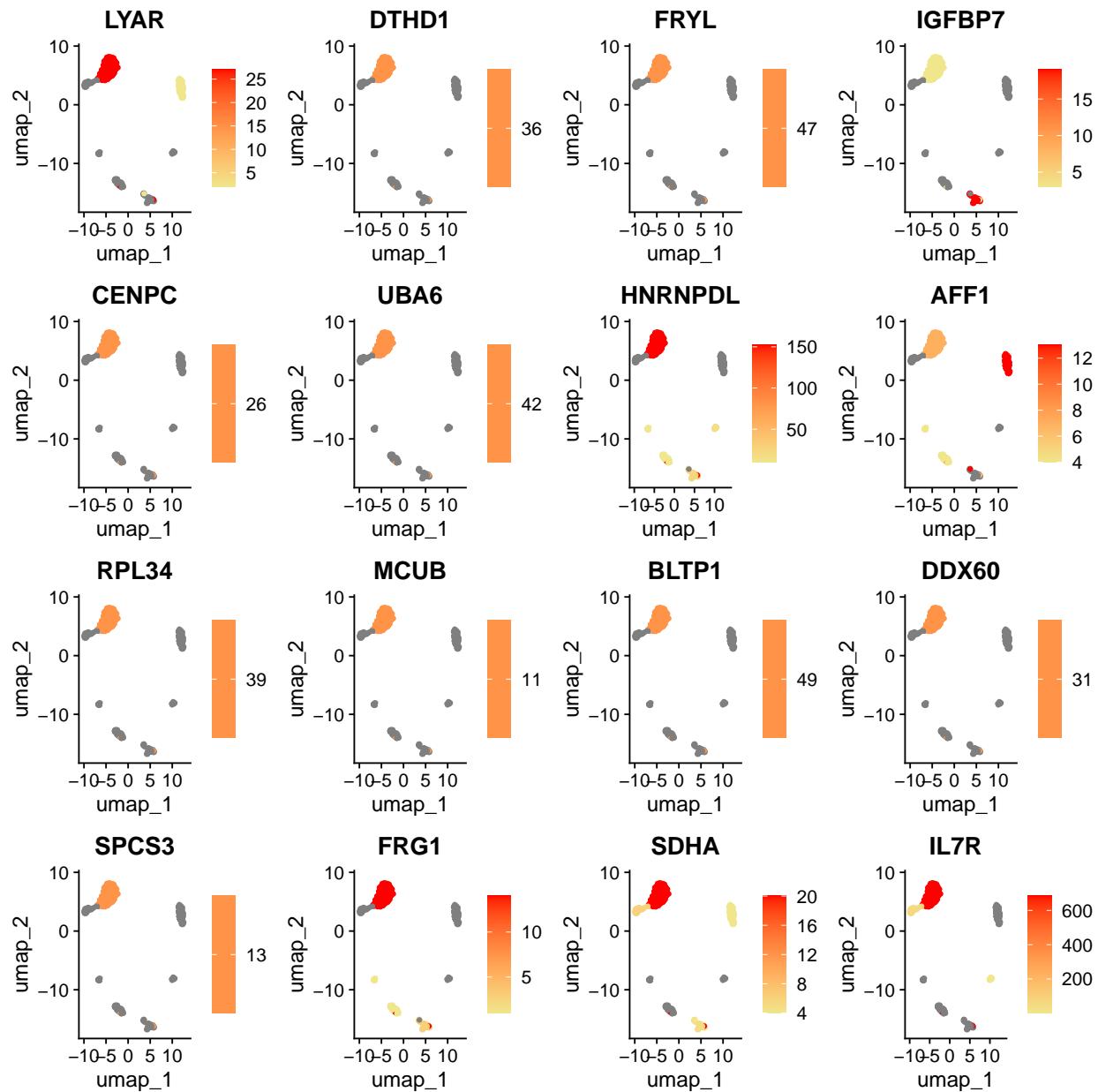
```
##  
## $`15`
```



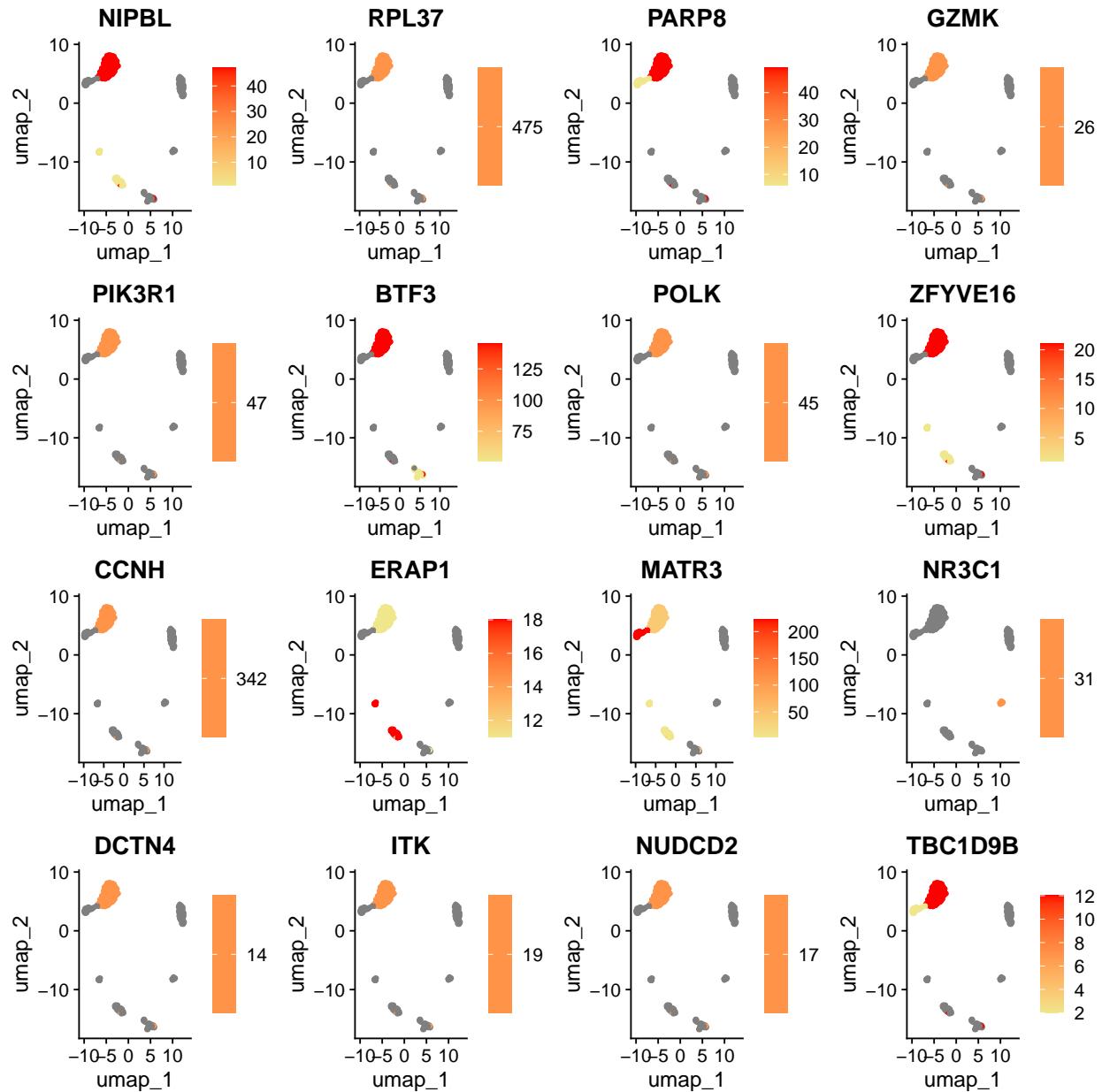
```
##  
## $`^16`
```



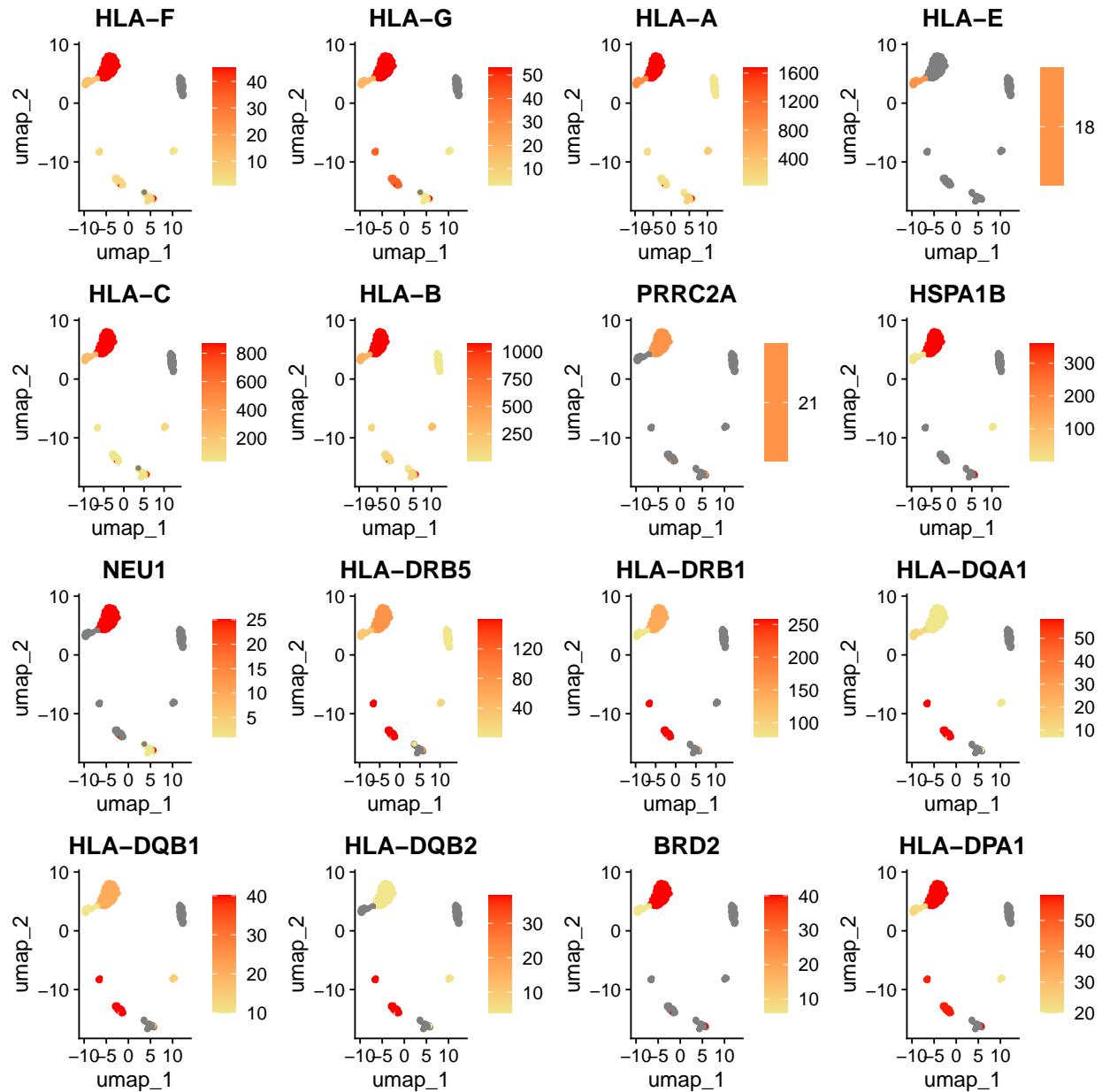
```
##  
## $`17`
```



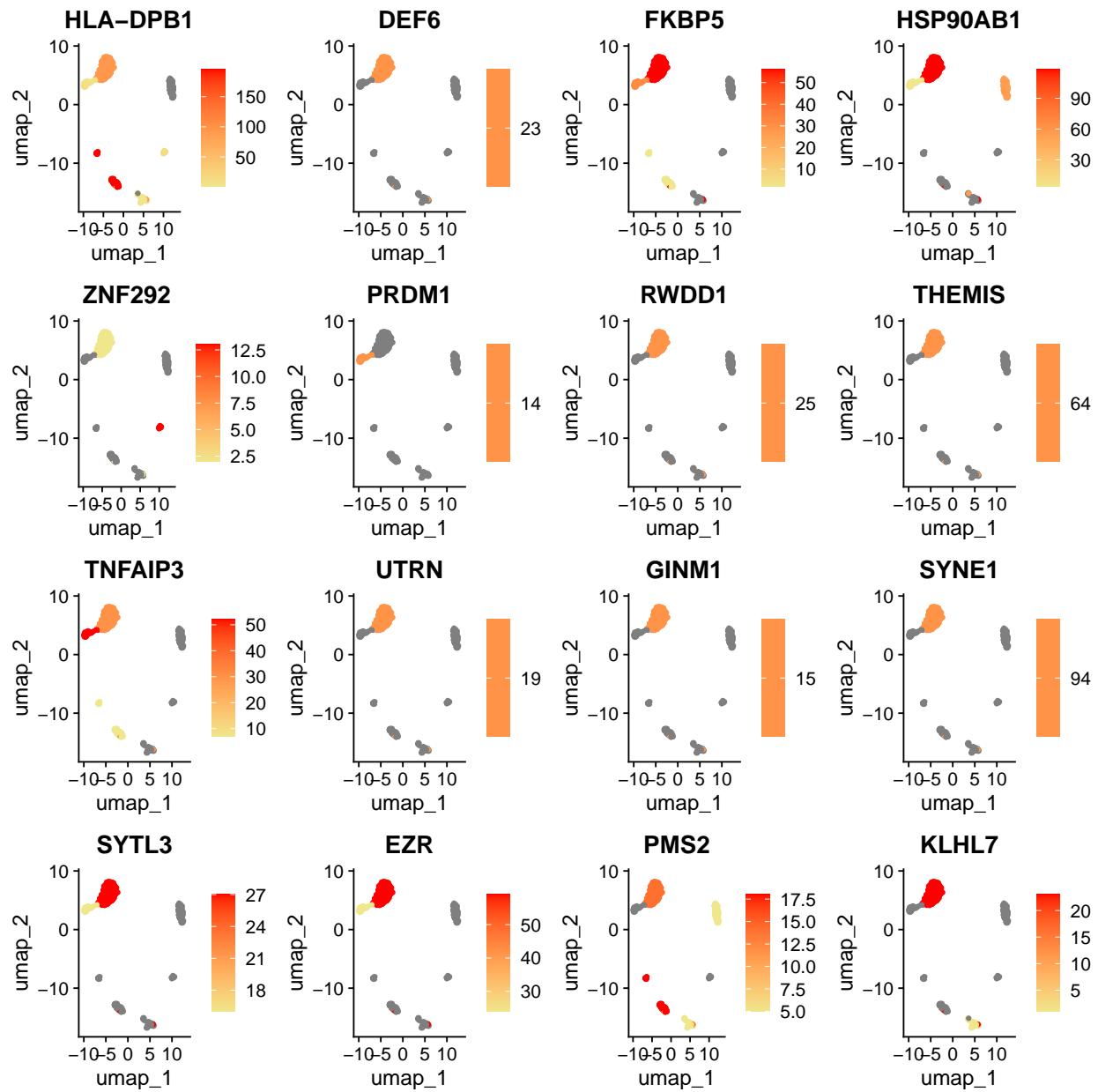
```
##  
## $`18`
```



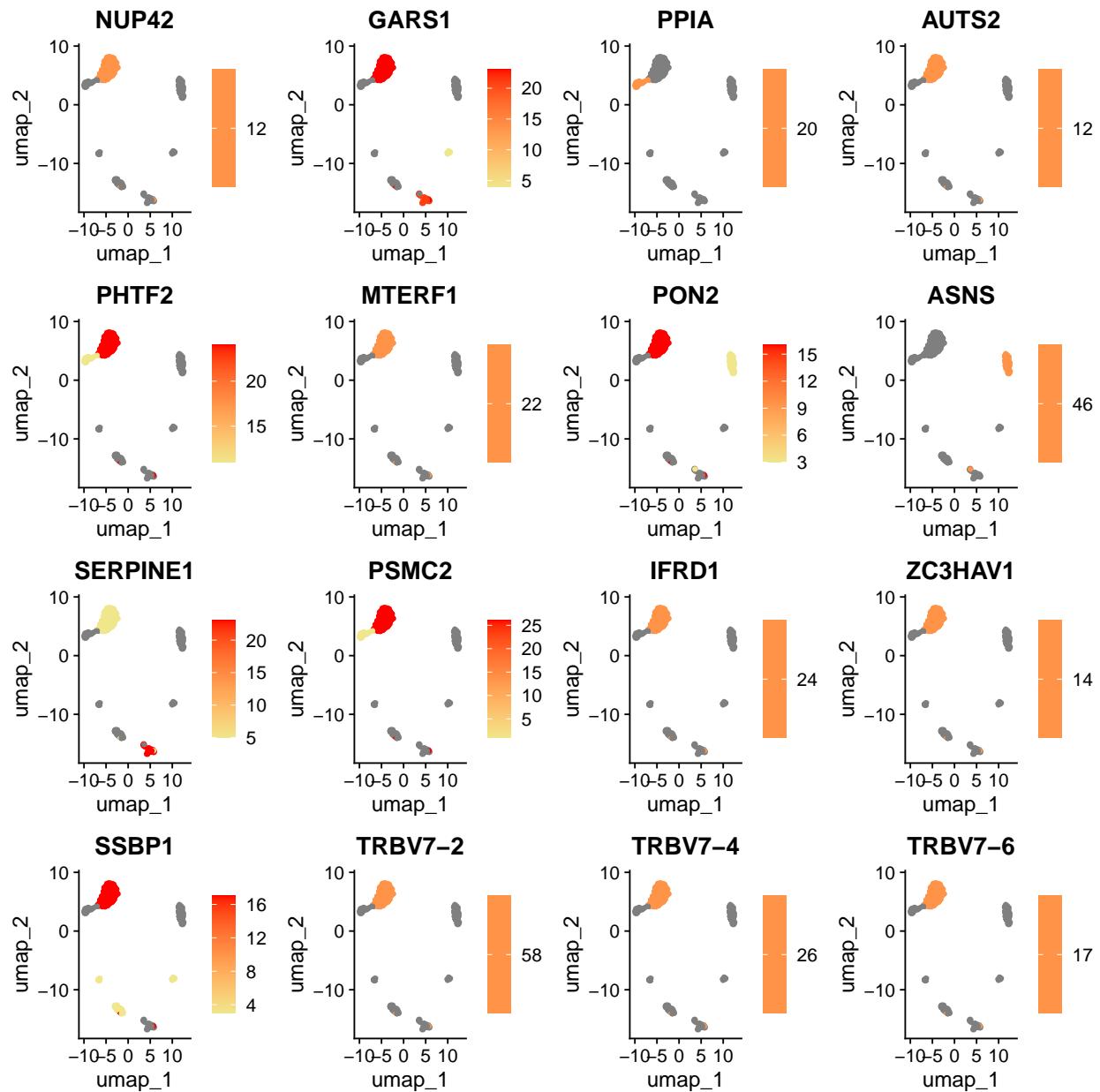
```
##  
## $`19`
```



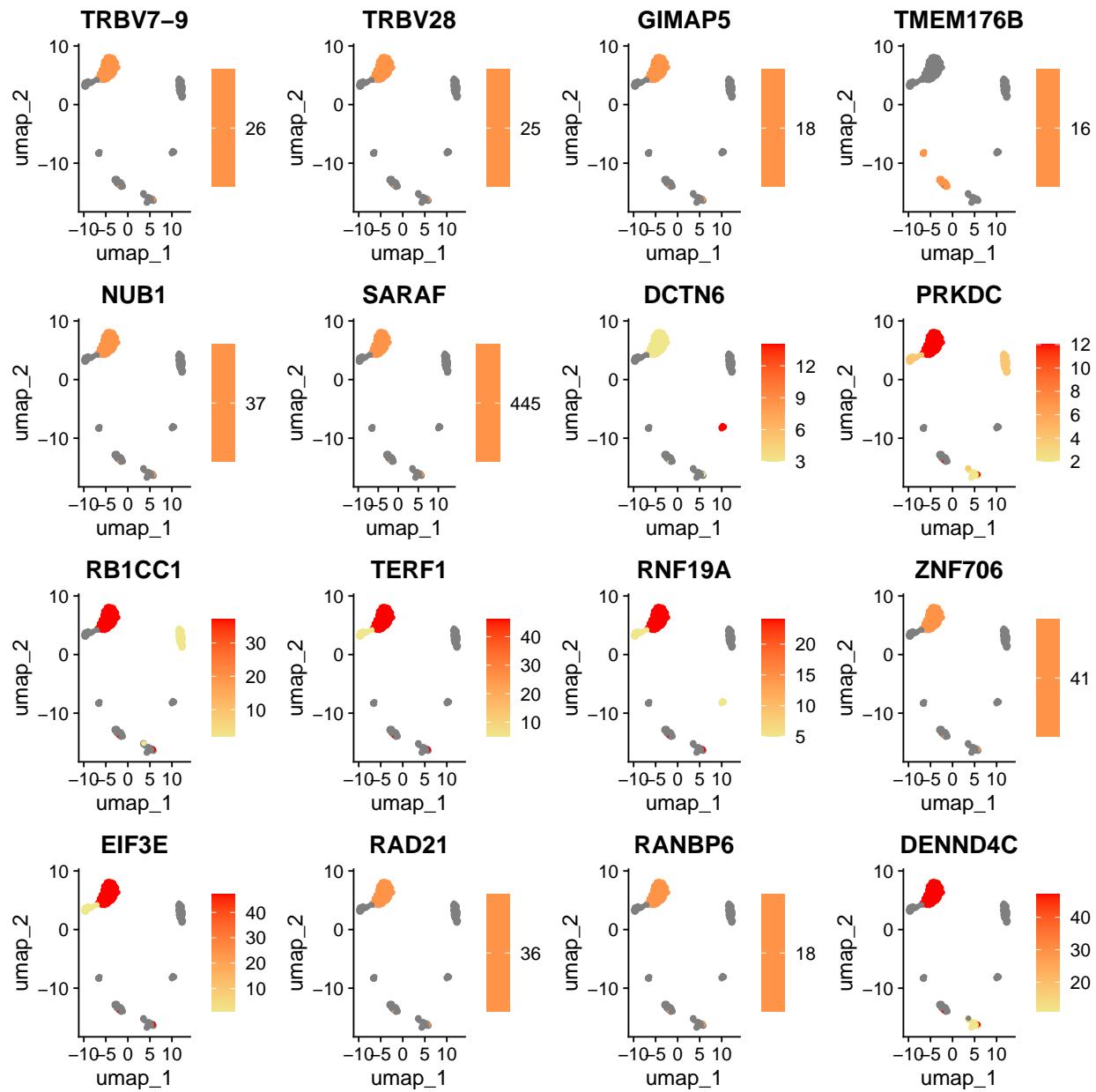
```
##  
## $^{\sim}20`
```



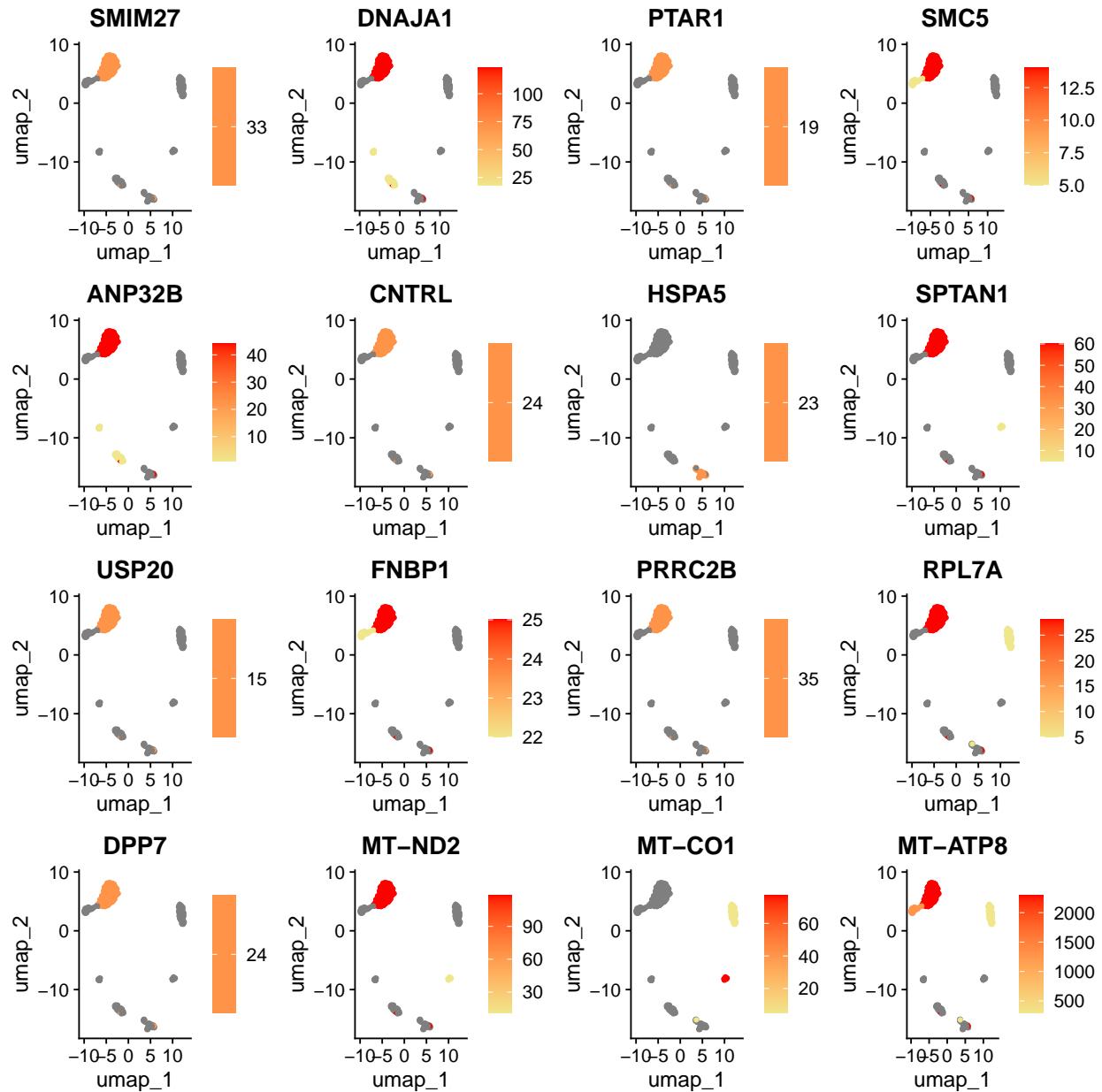
```
##  
## $`21`
```



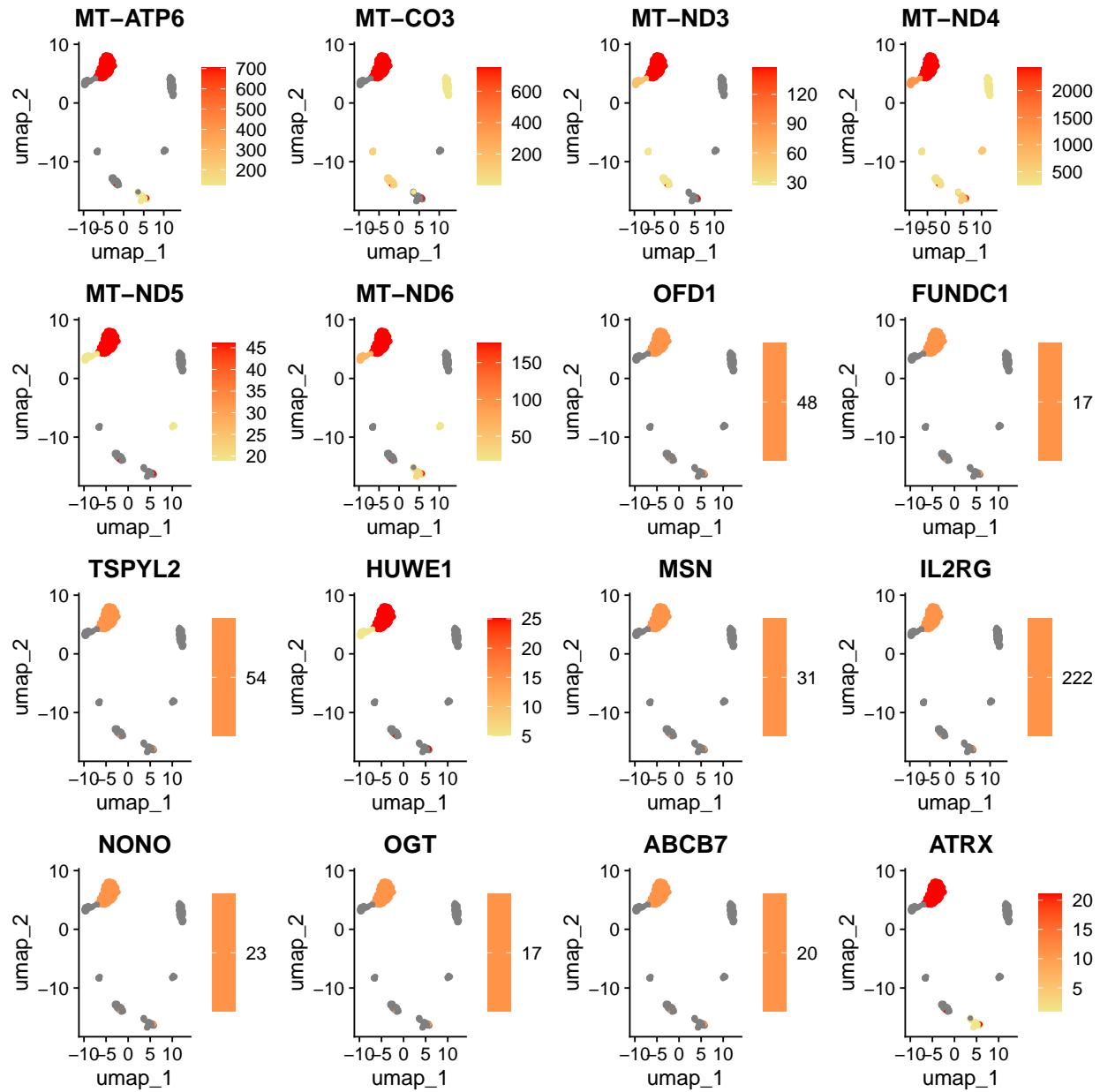
```
##  
## $`22`
```



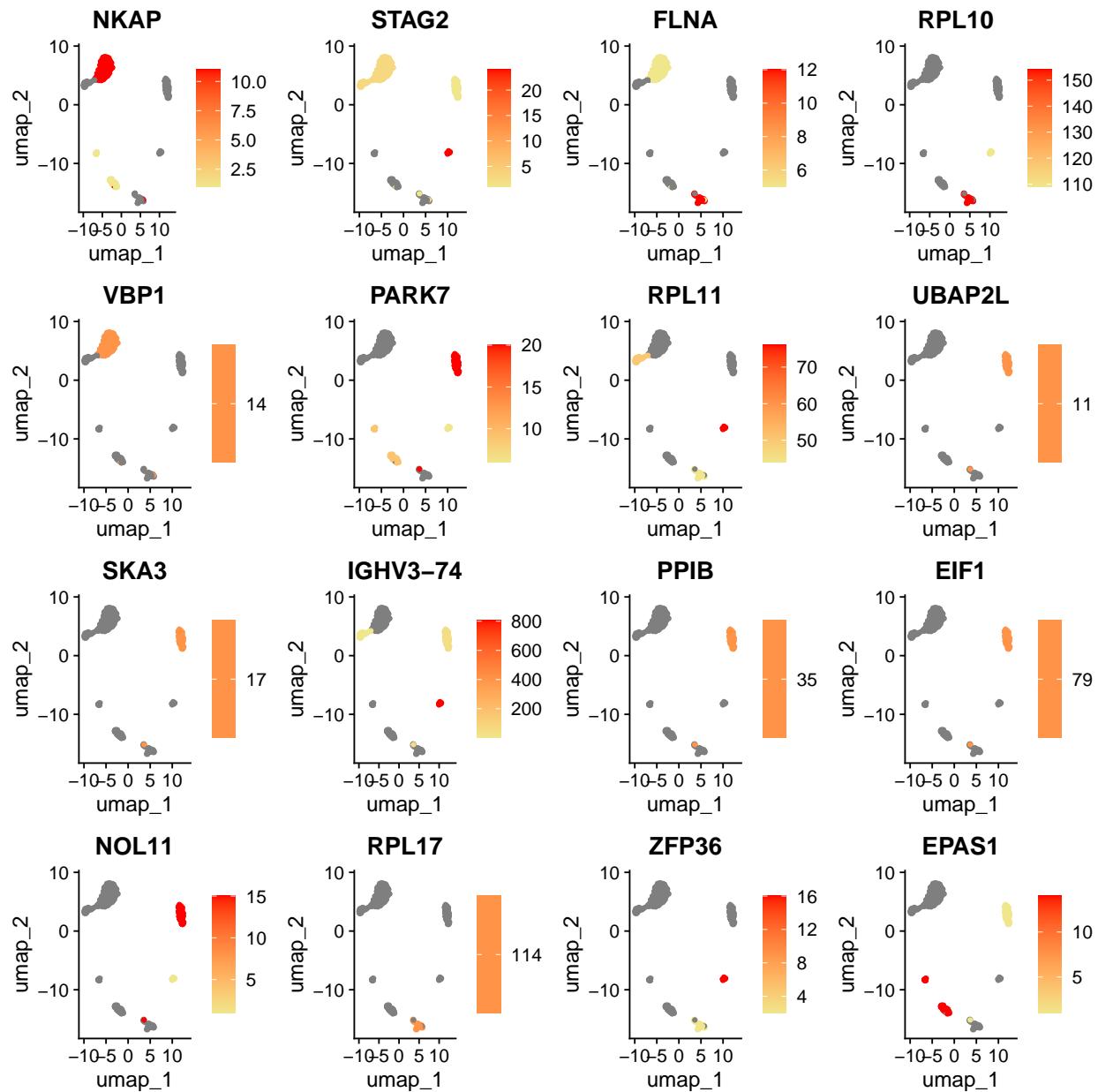
```
##  
## $`23`
```



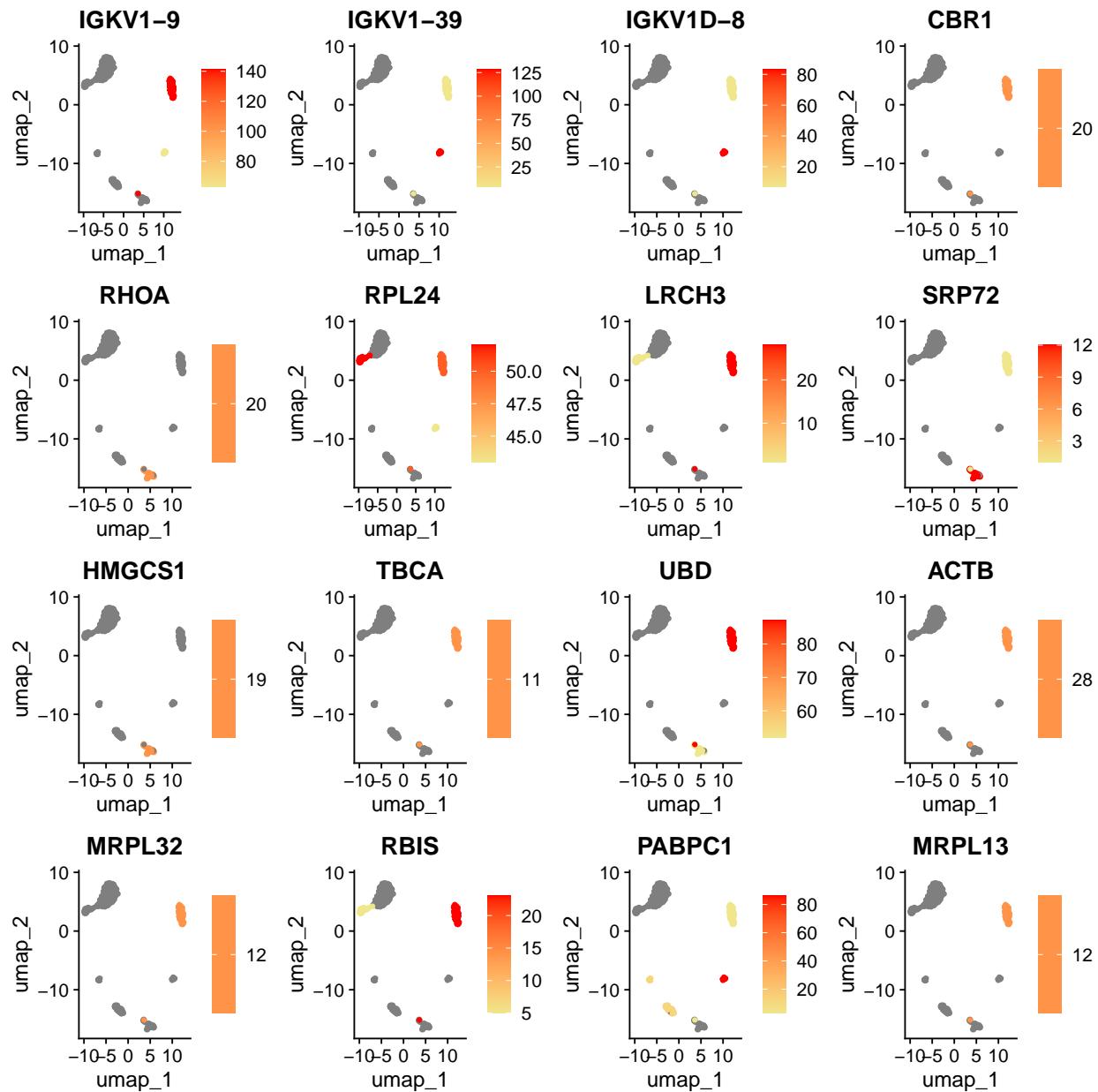
```
##  
## $`24`
```



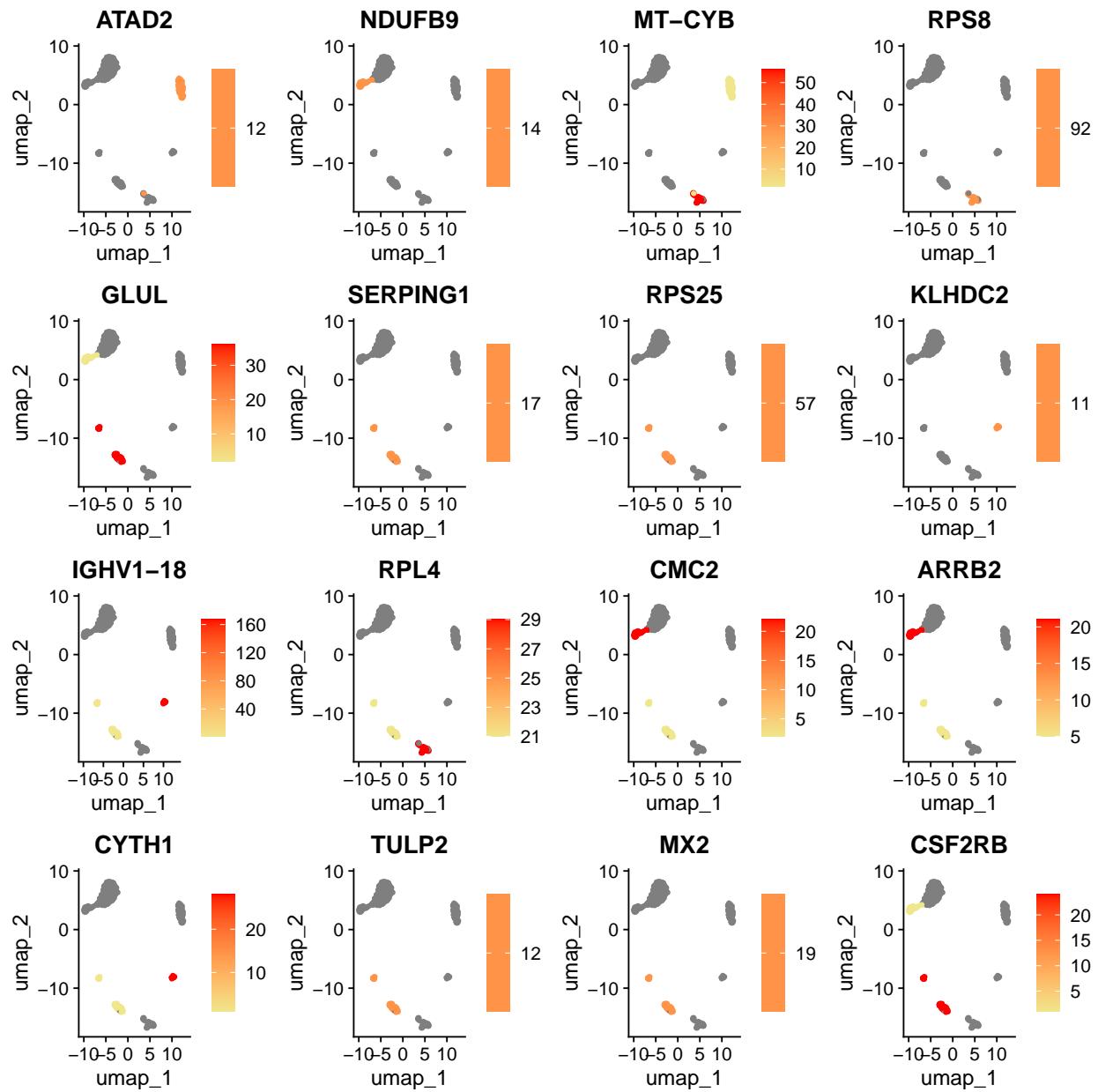
```
##  
## $^25`
```



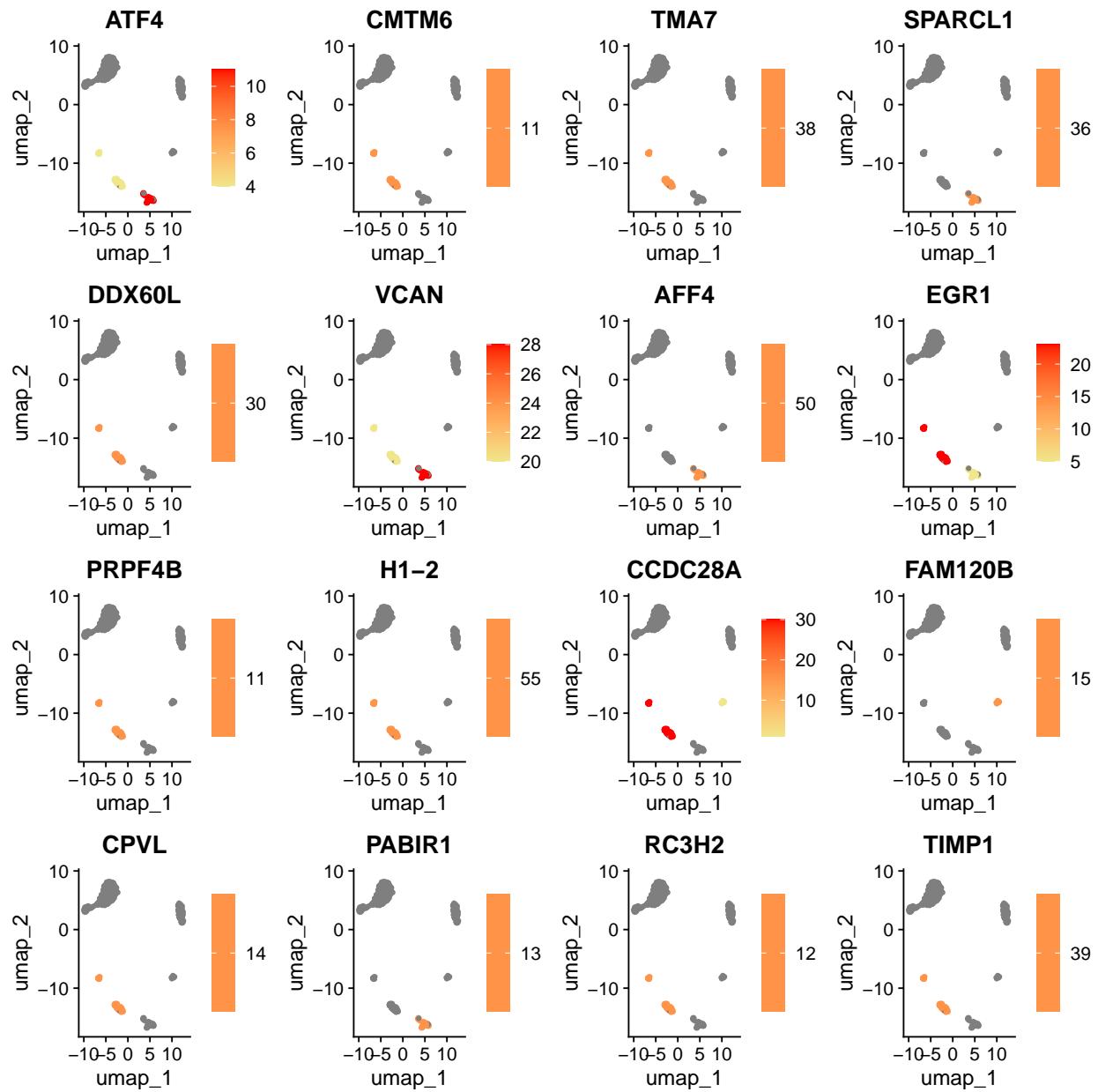
```
##  
## $`26`
```



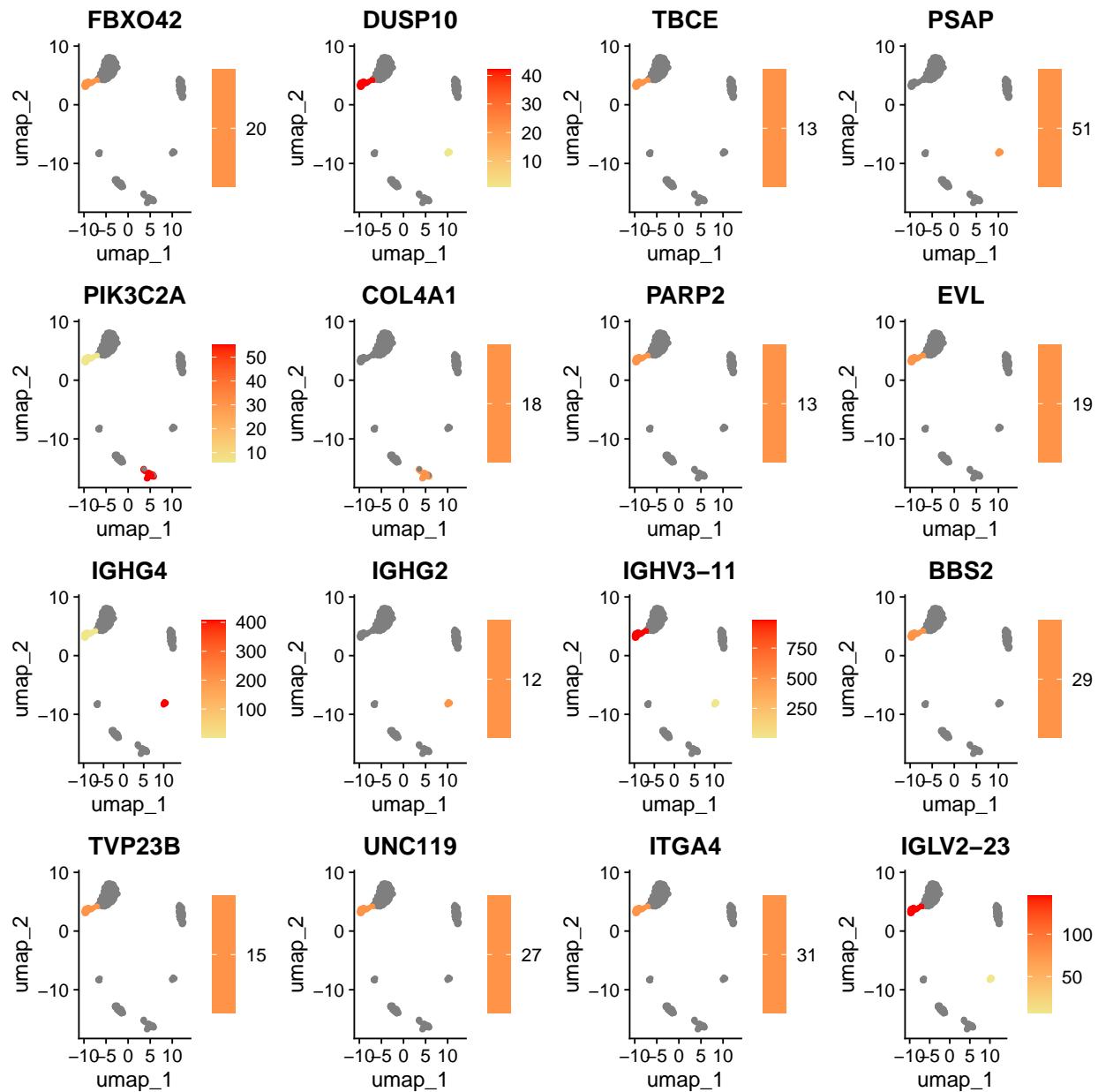
```
##  
## $^27`
```



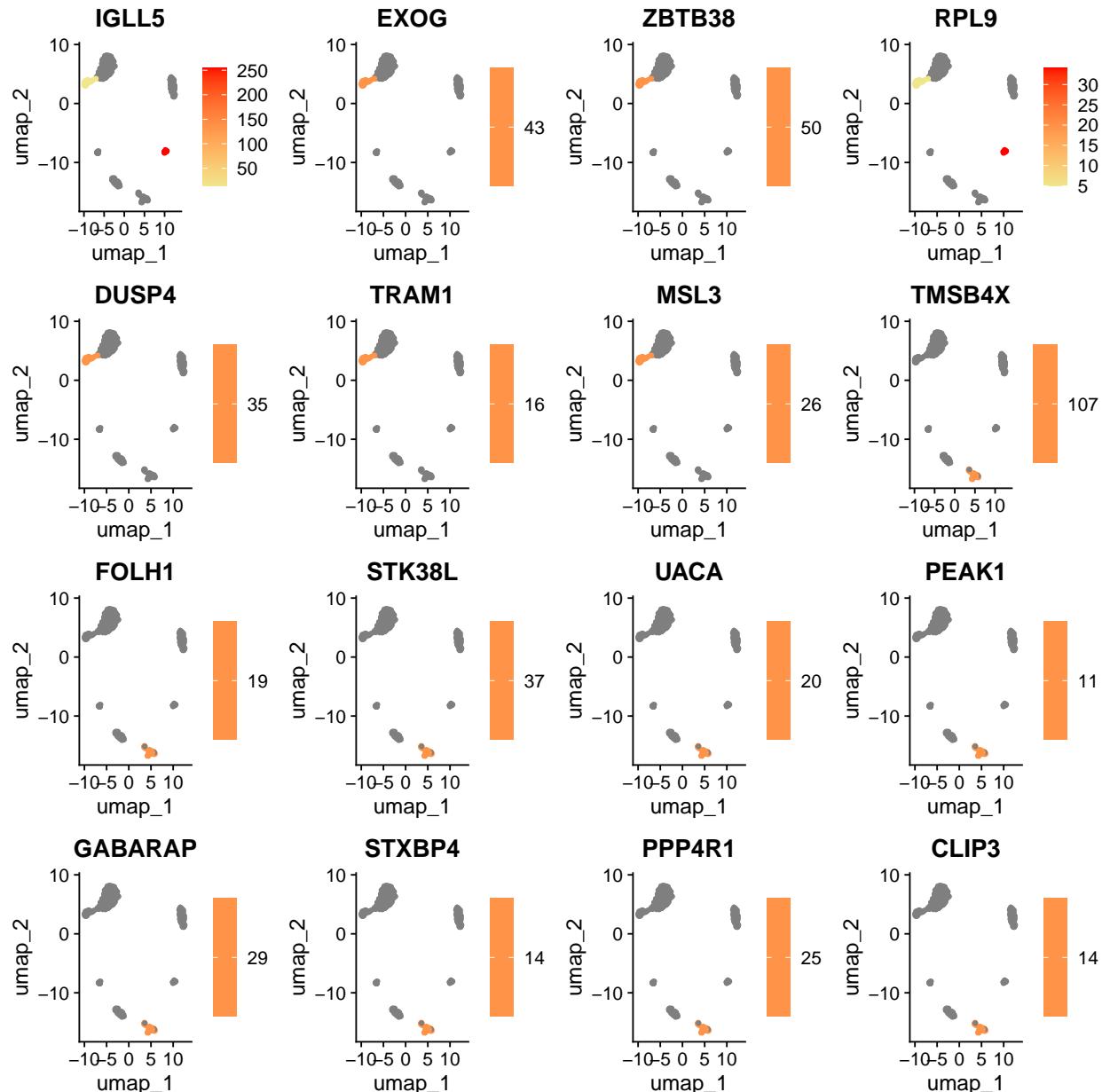
```
##  
## $^28`
```



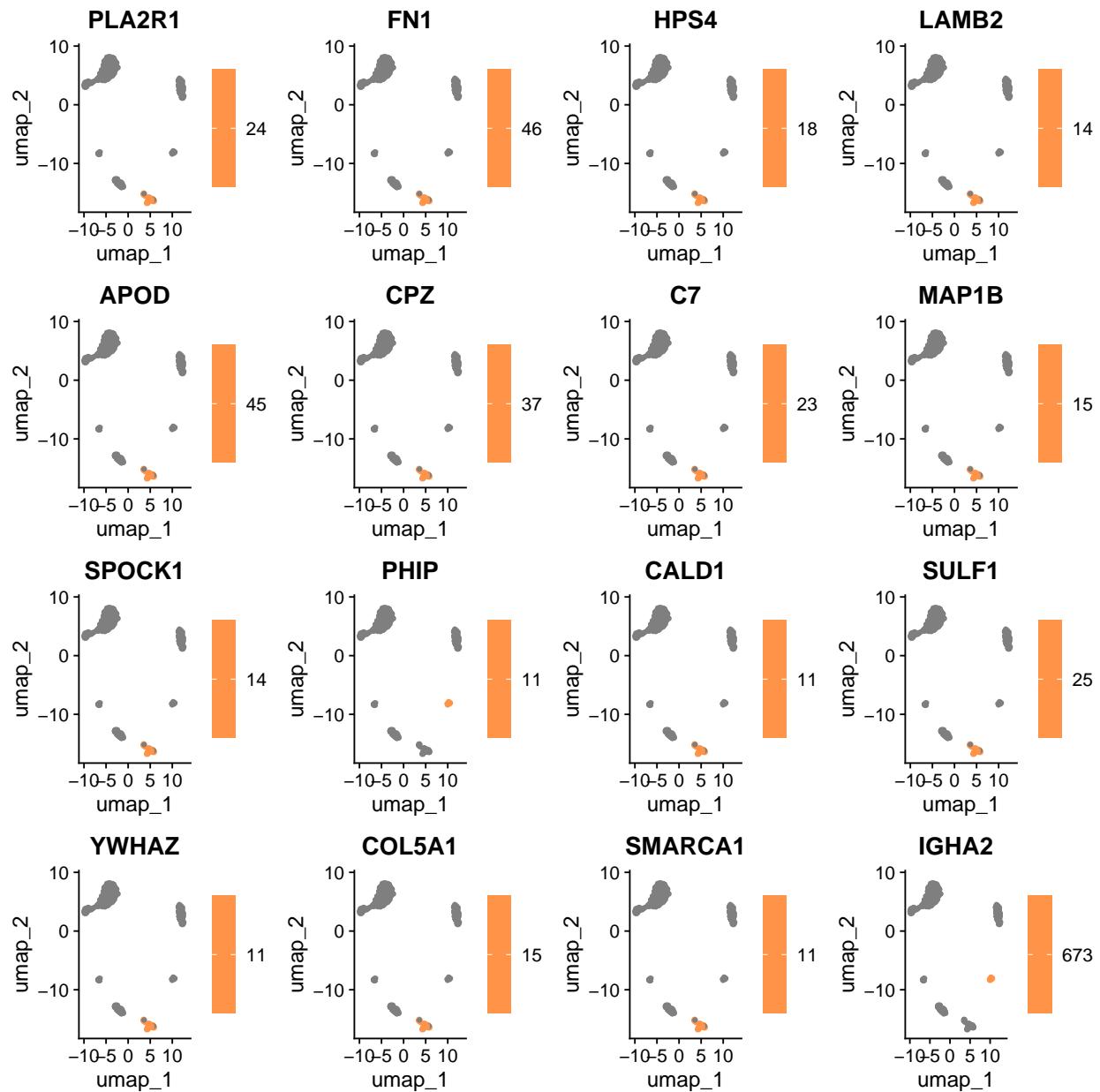
```
##  
## $`^29`
```



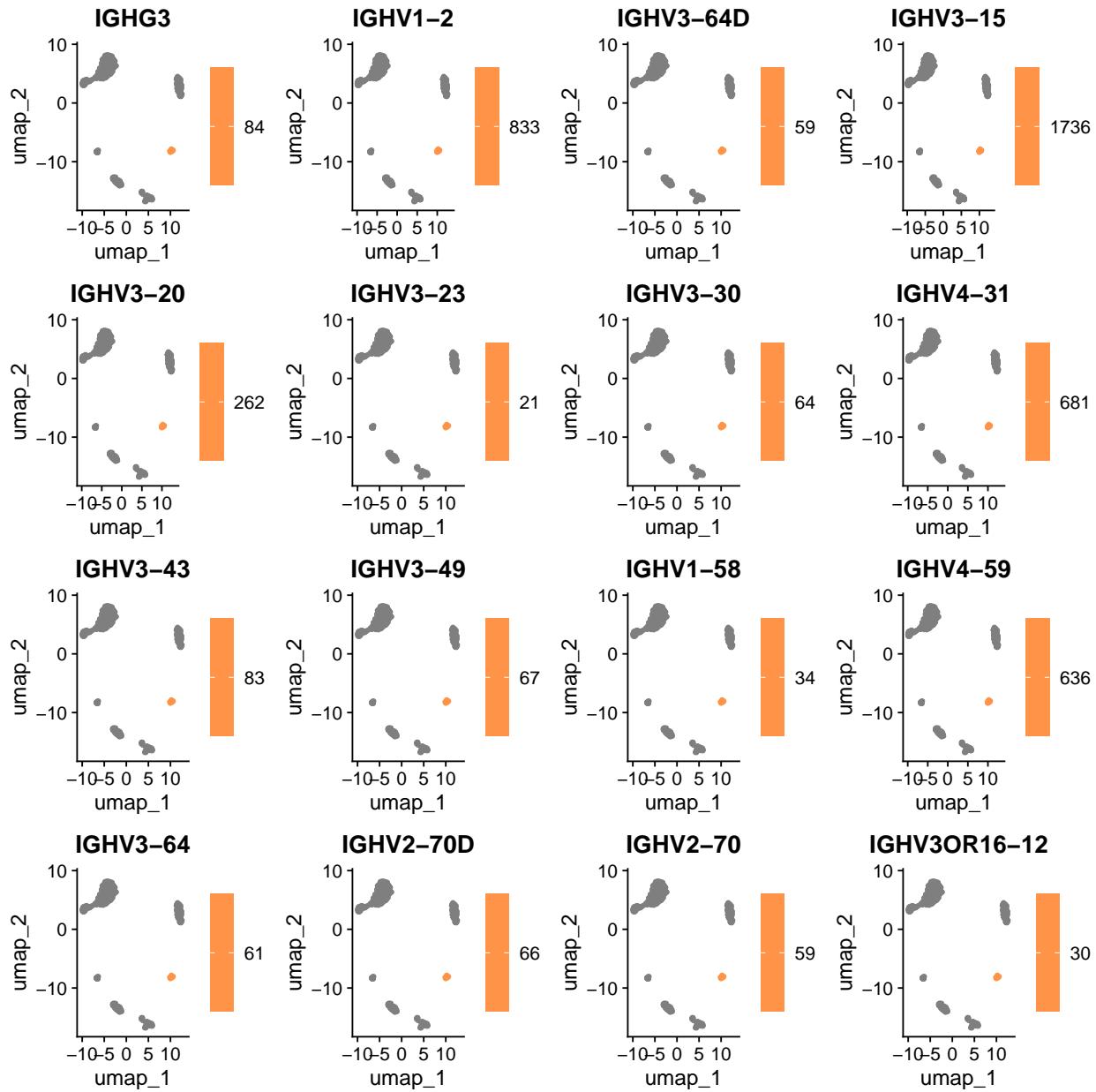
```
##  
## $`30`
```



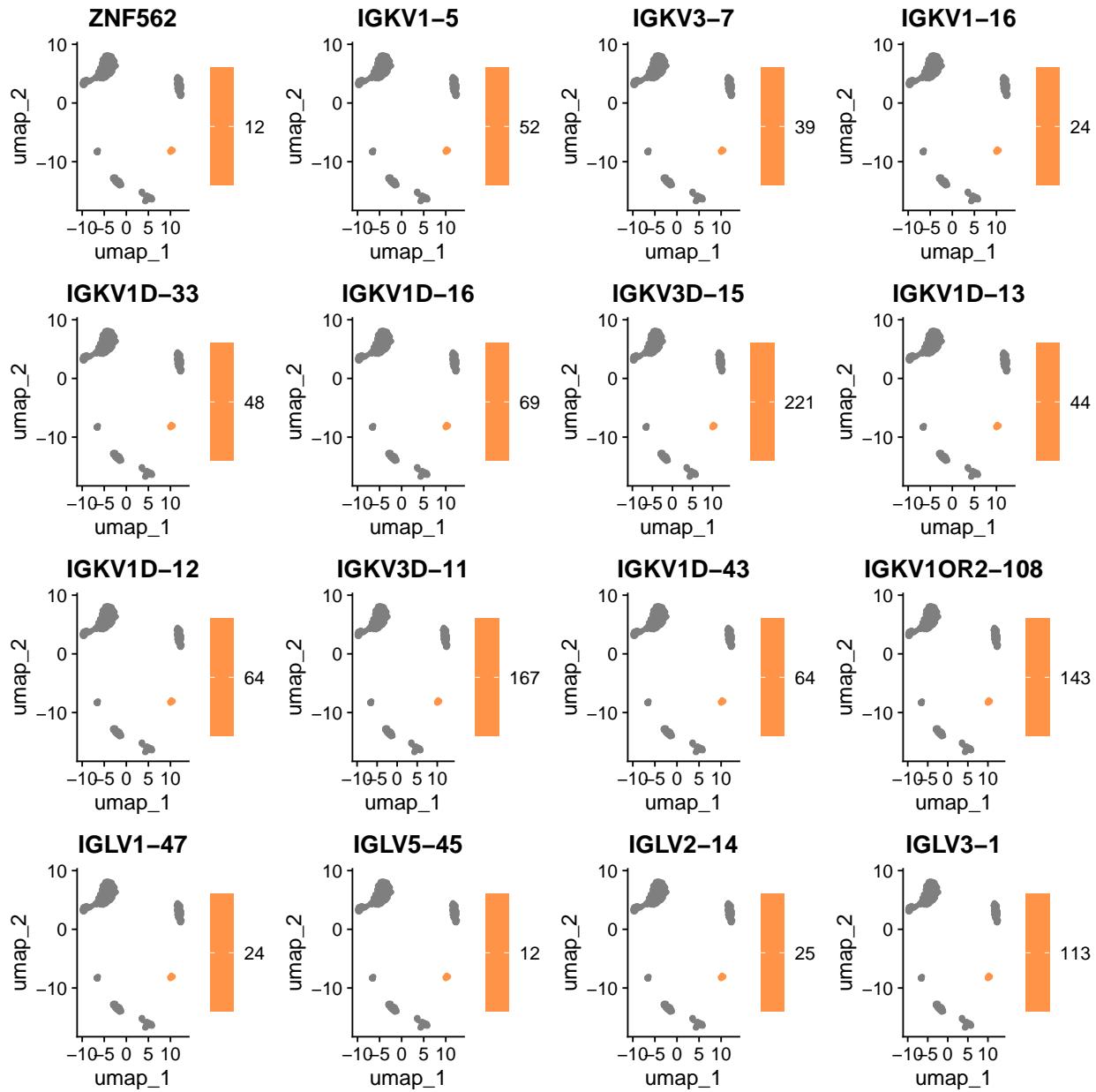
##  
## \$`31`



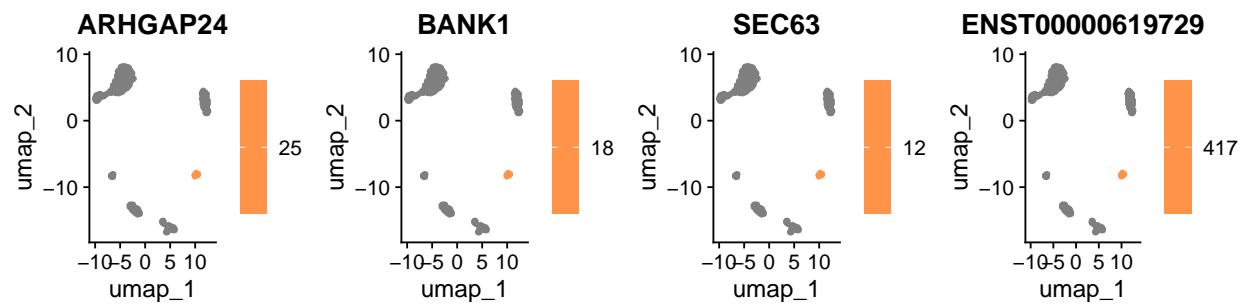
```
##  
## $`32`
```



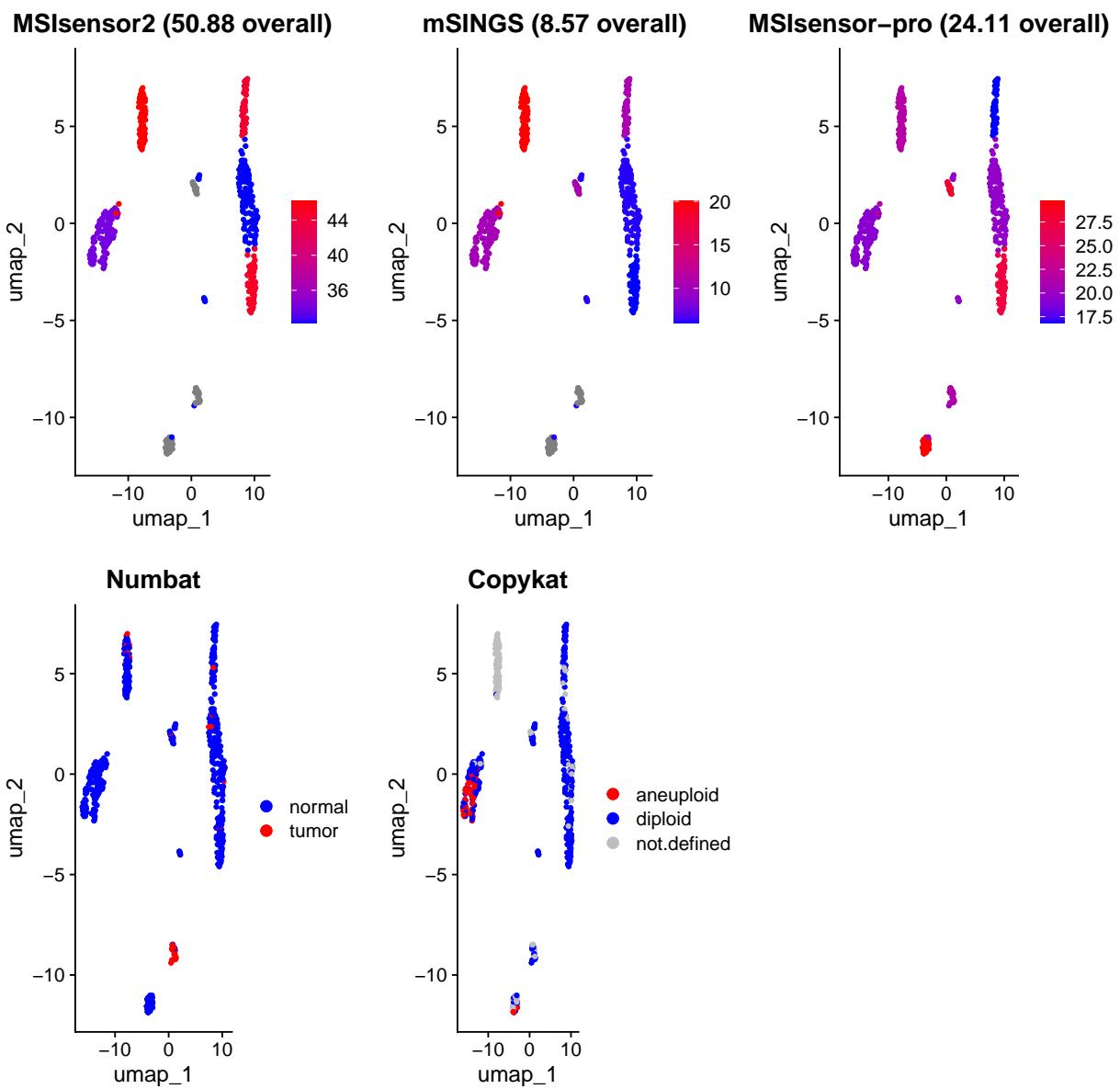
```
##  
## $`33`
```



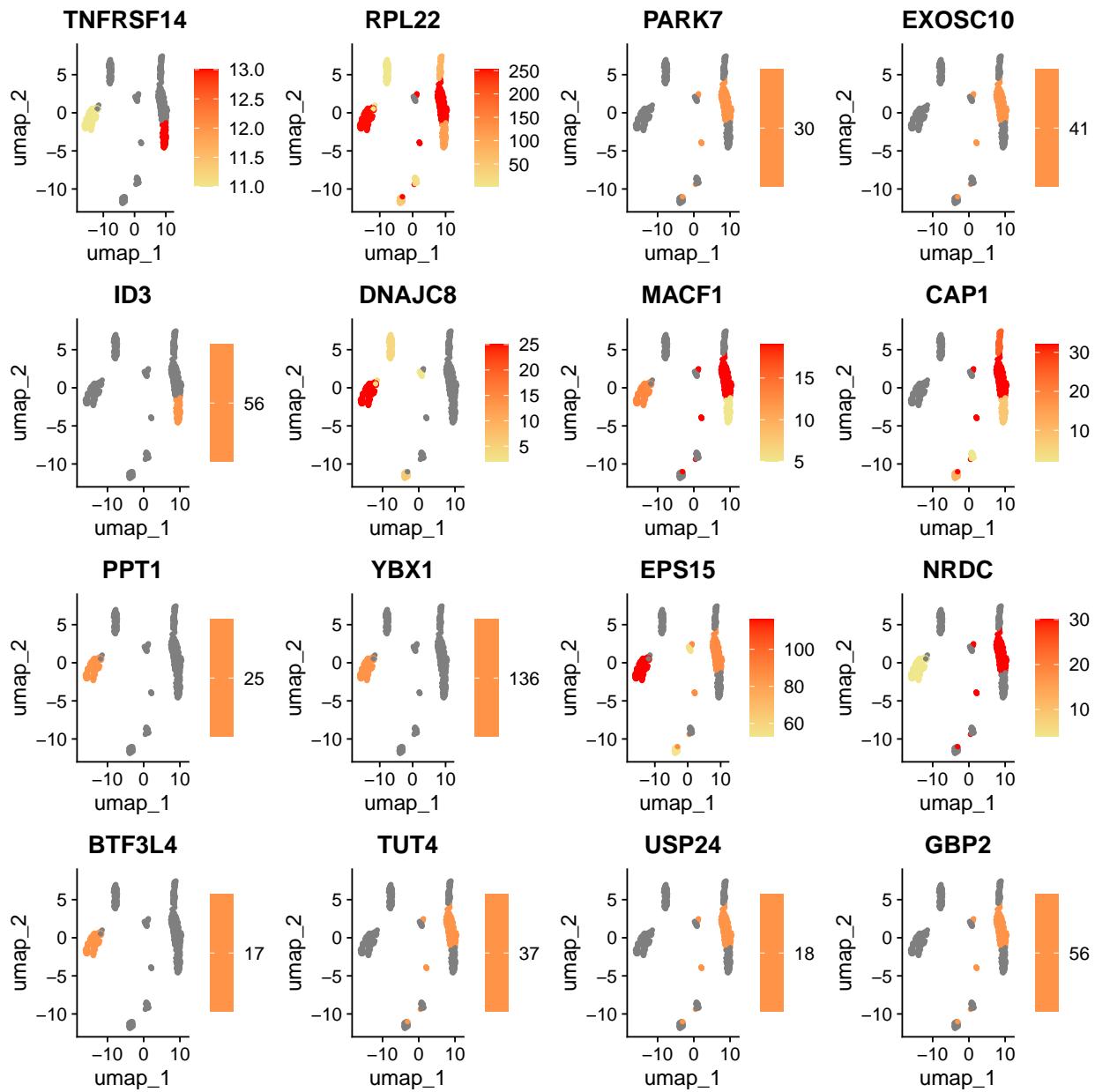
```
##  
## $`34`  
  
##  
## attr(,"class")  
## [1] "list"      "ggarrange"
```



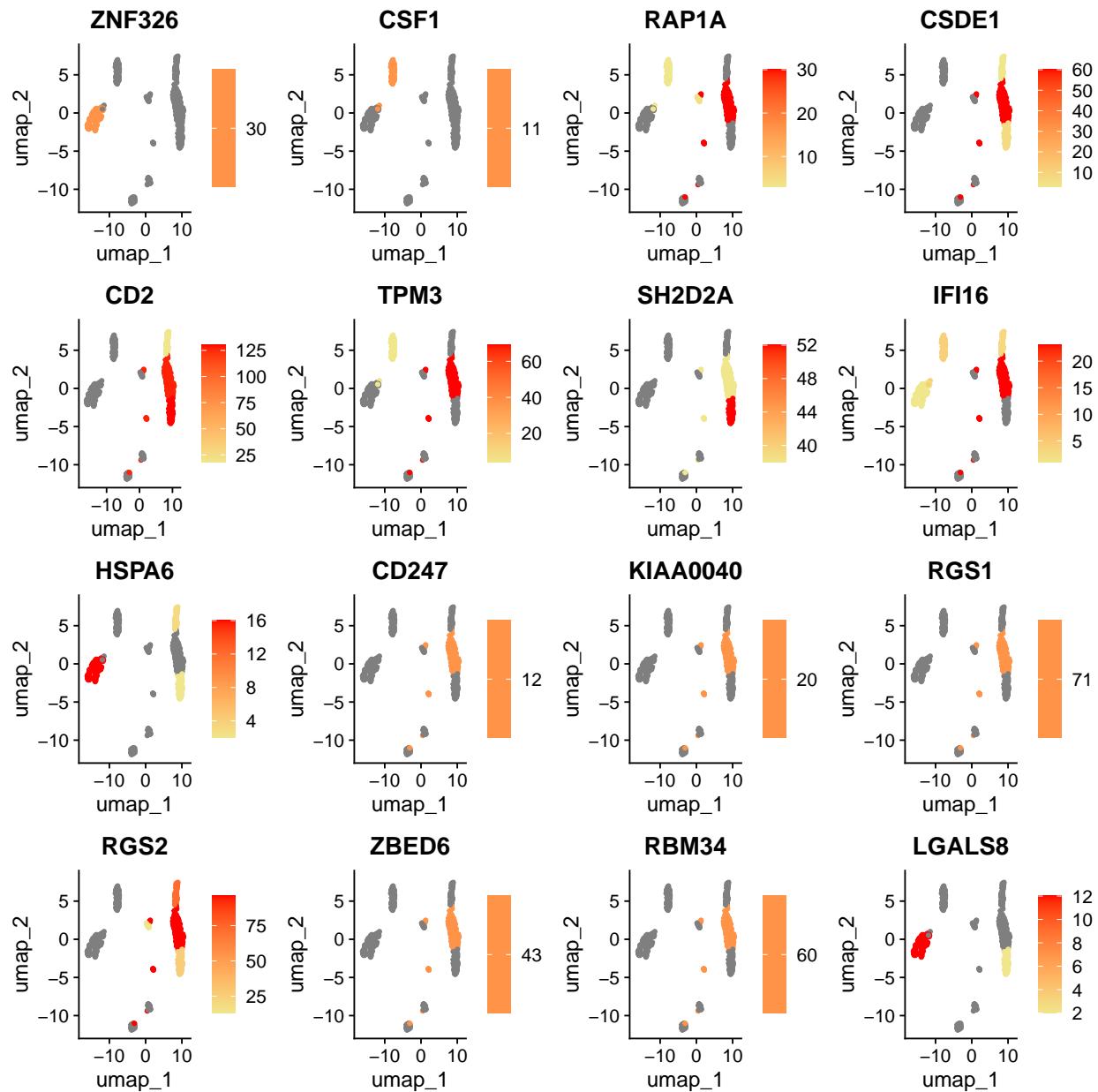
## XHC139-SI-GA-H4; Invasive4; MSI-H; IHC



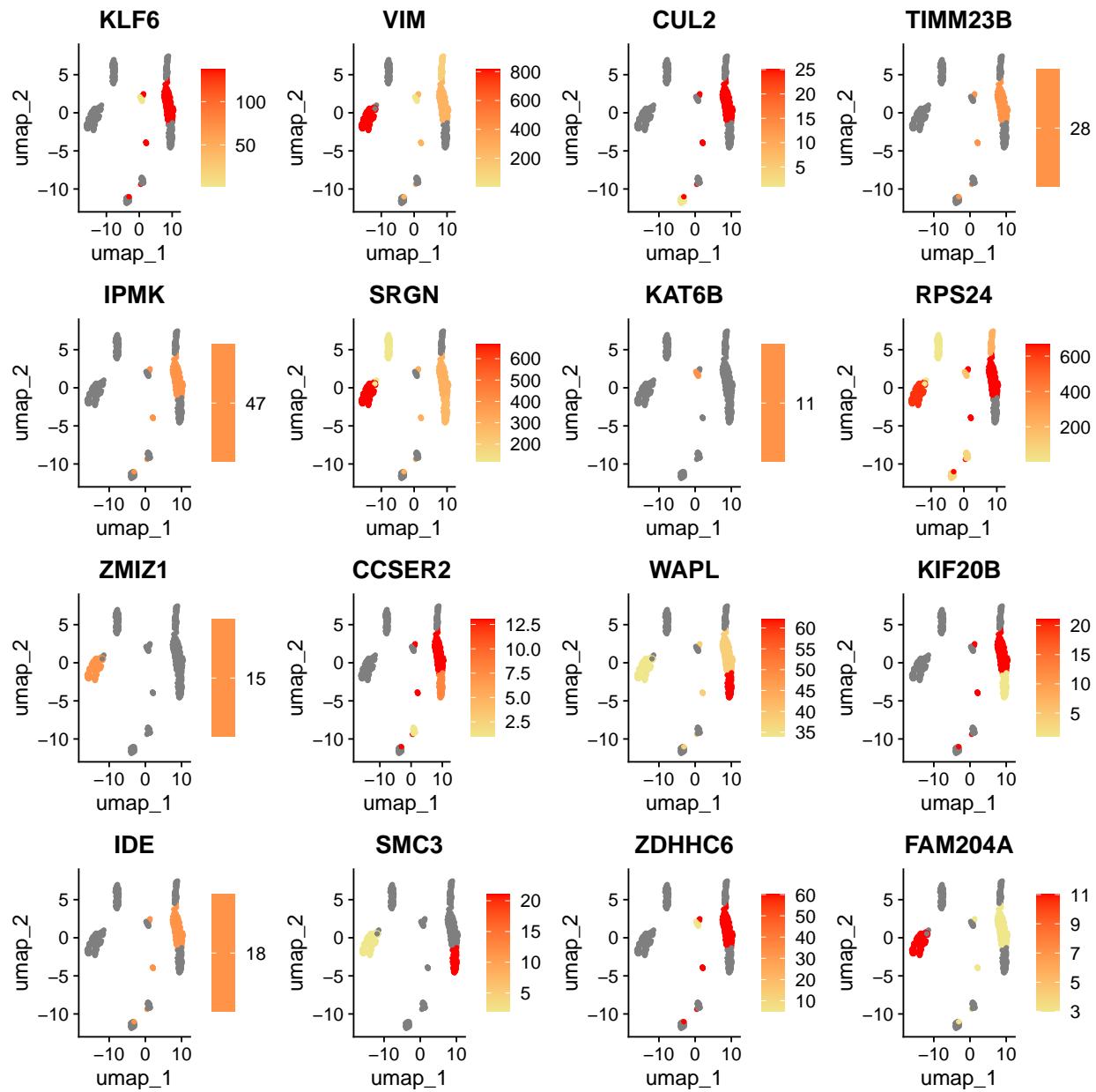
```
## $`1`
```



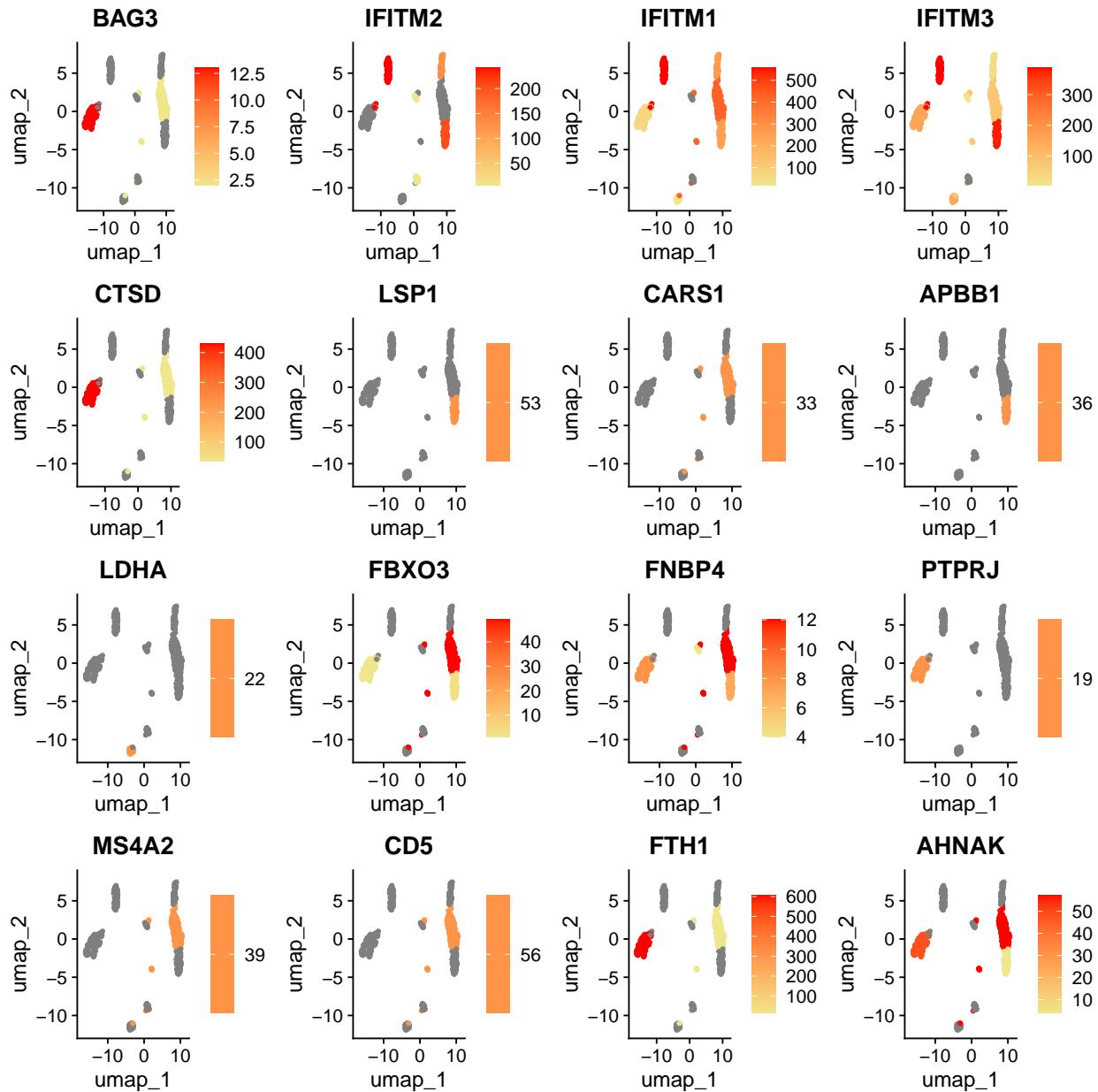
```
##  
## $^2`
```



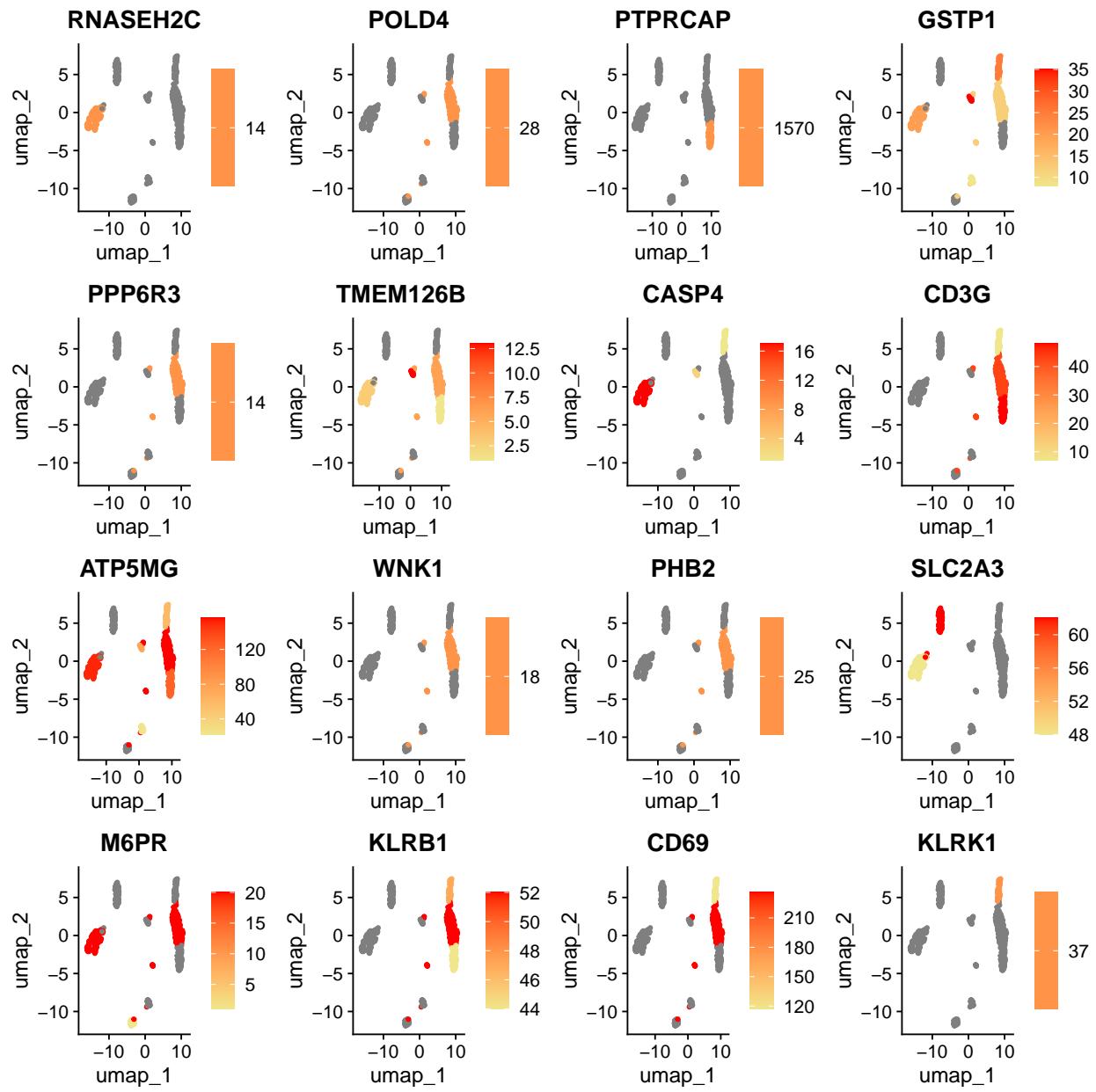
```
##  
## $`3`
```



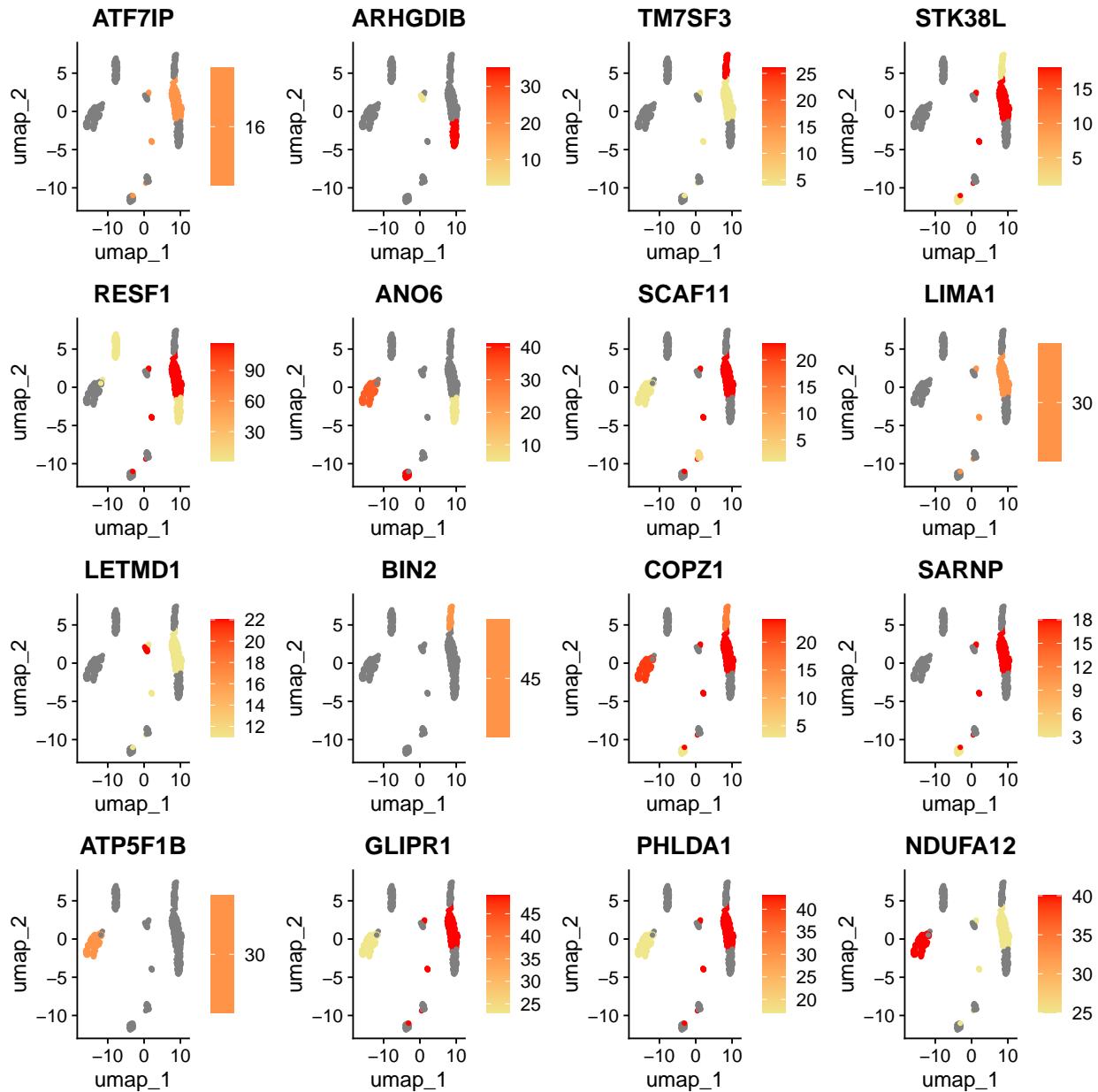
```
##  
## $`4`
```



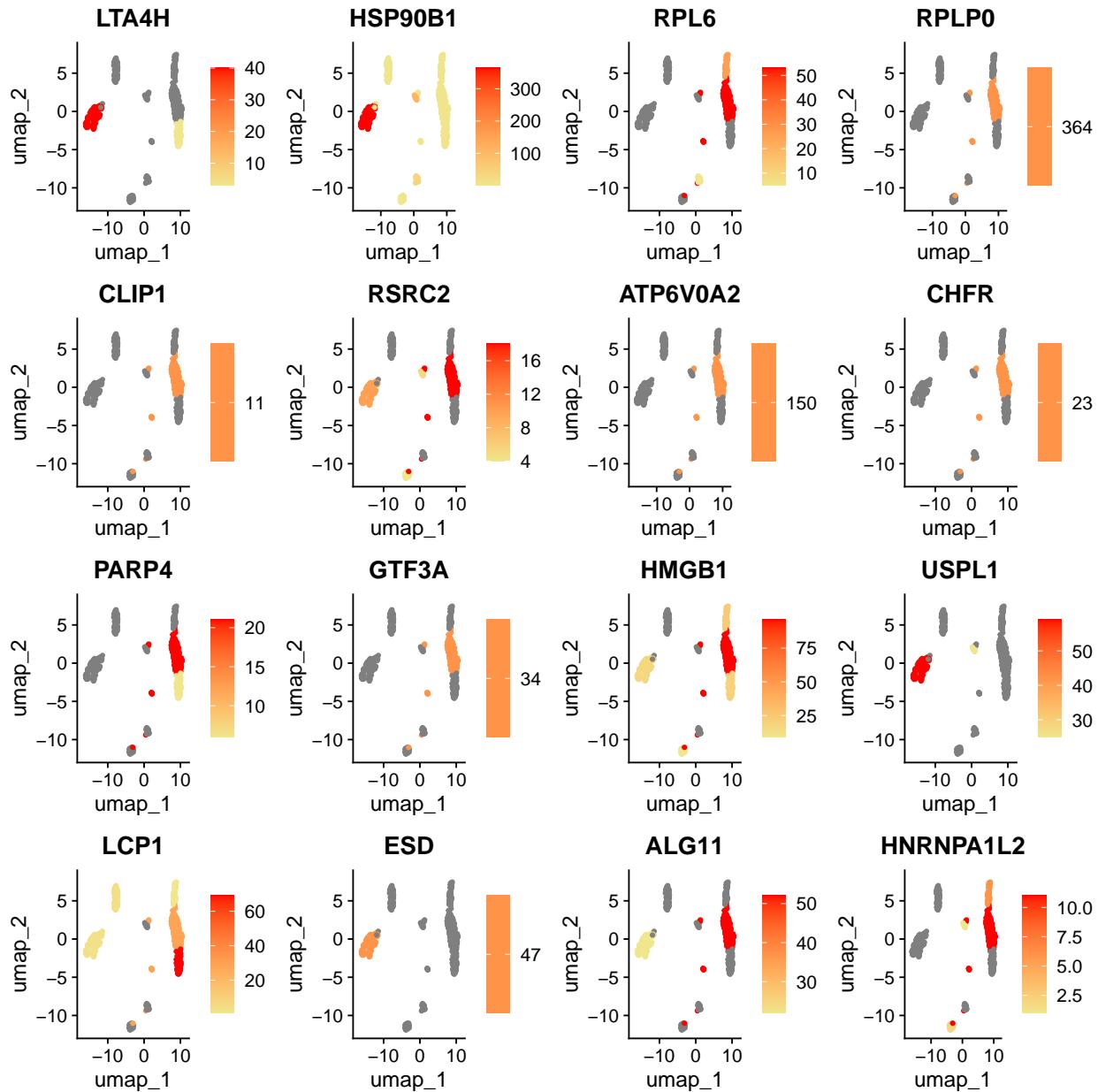
```
##  
## $`5`
```



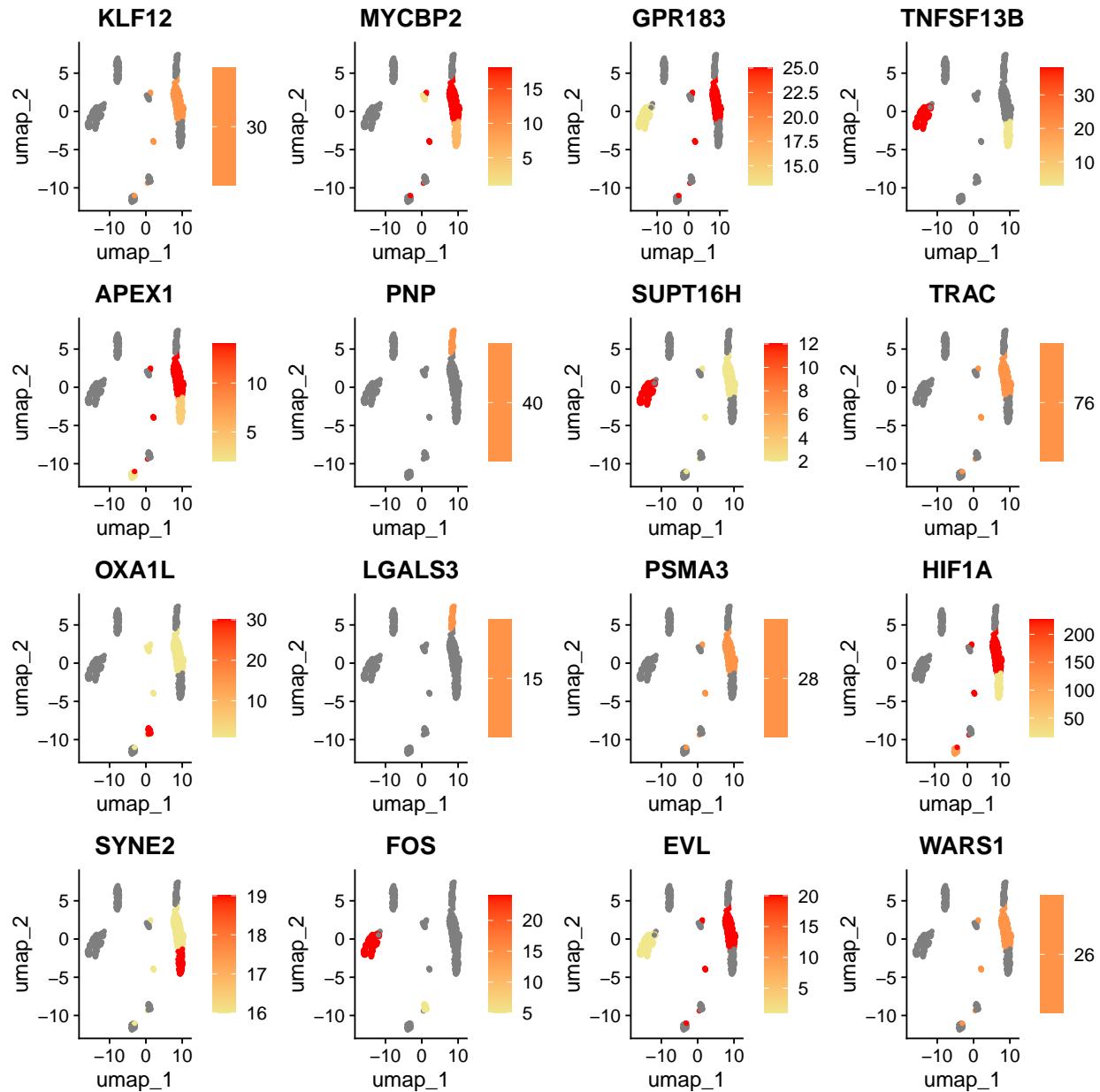
```
##  
## $`6`
```



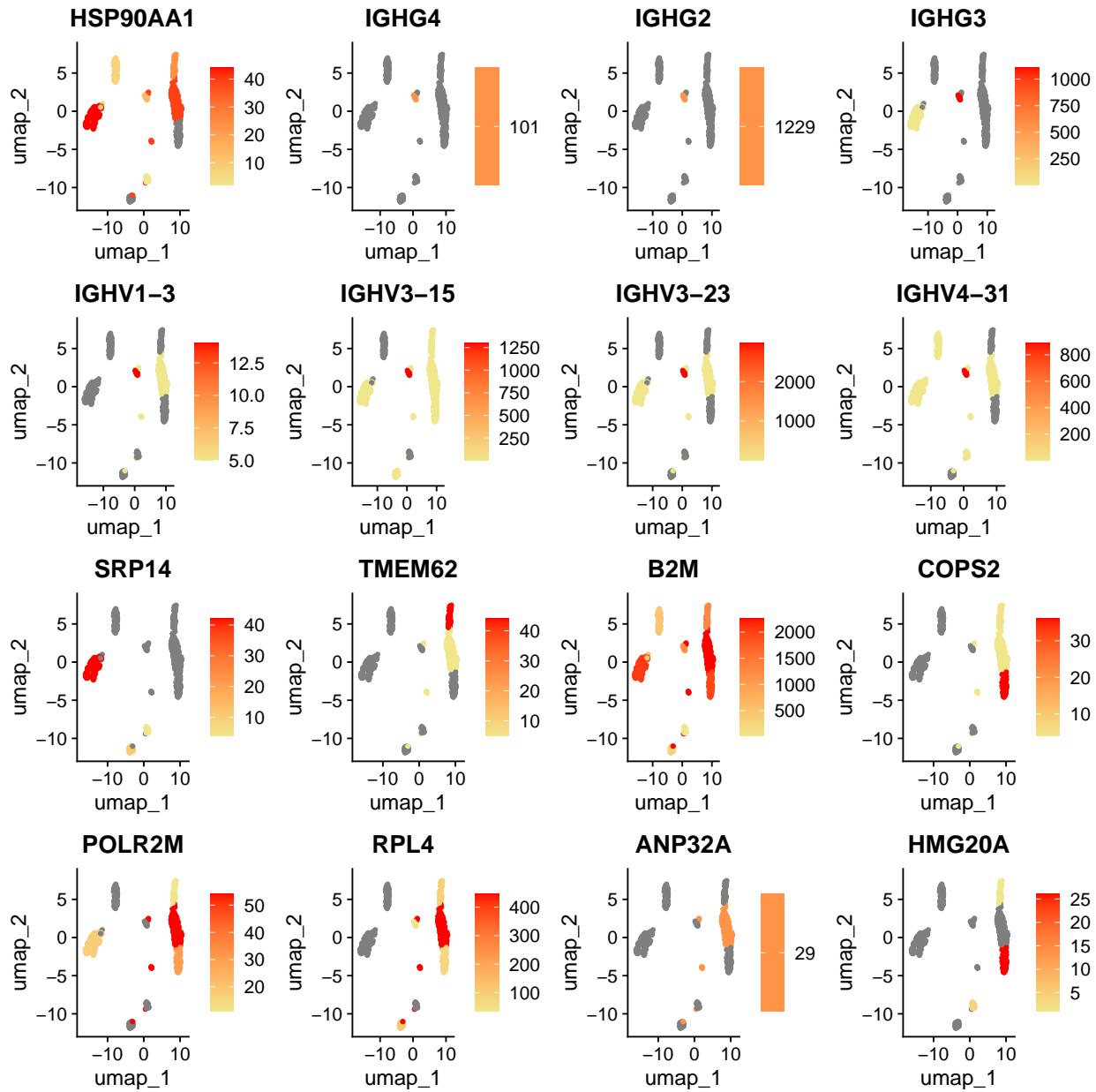
```
##  
## $`7`
```



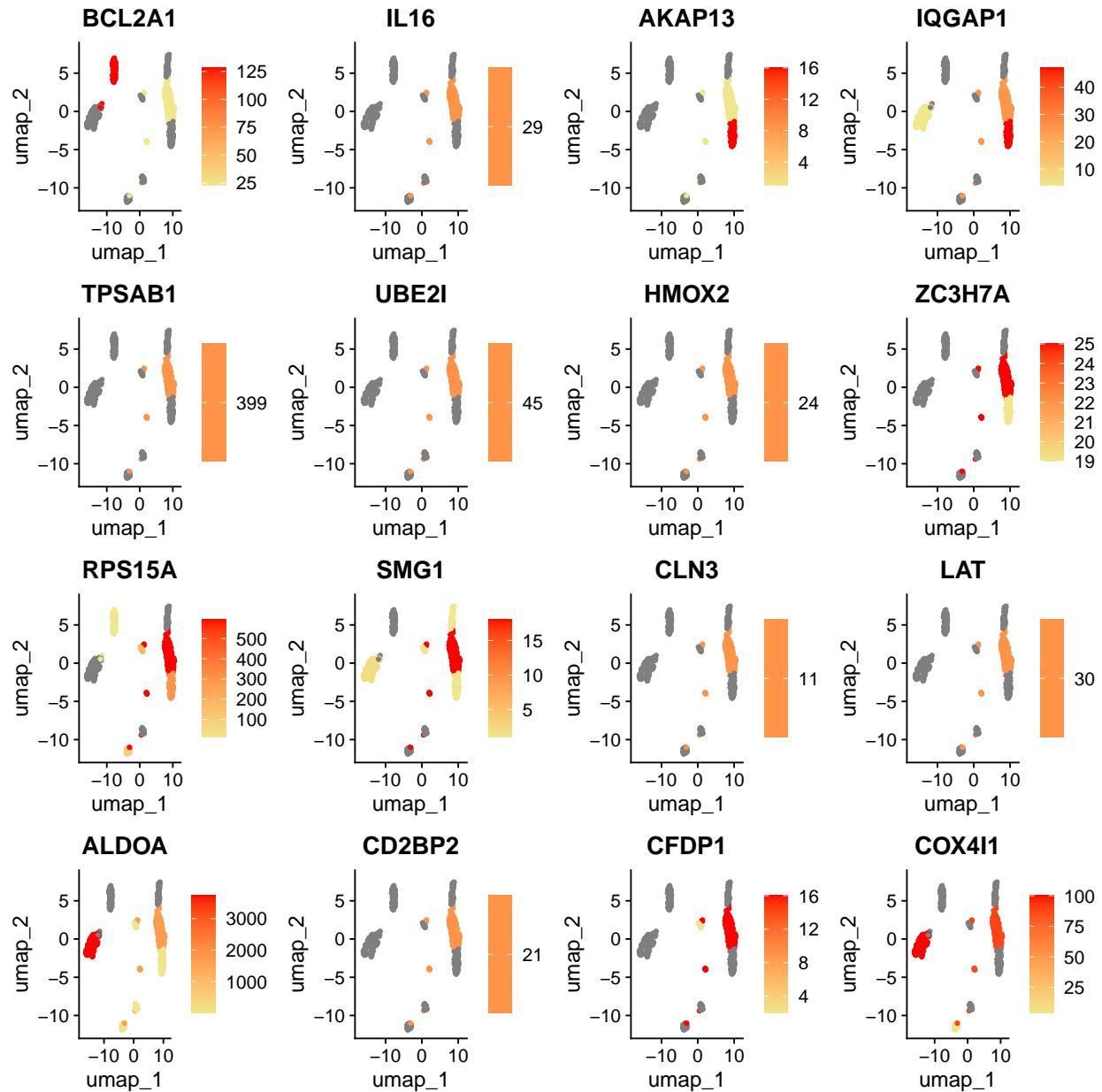
```
##  
## $`8`
```



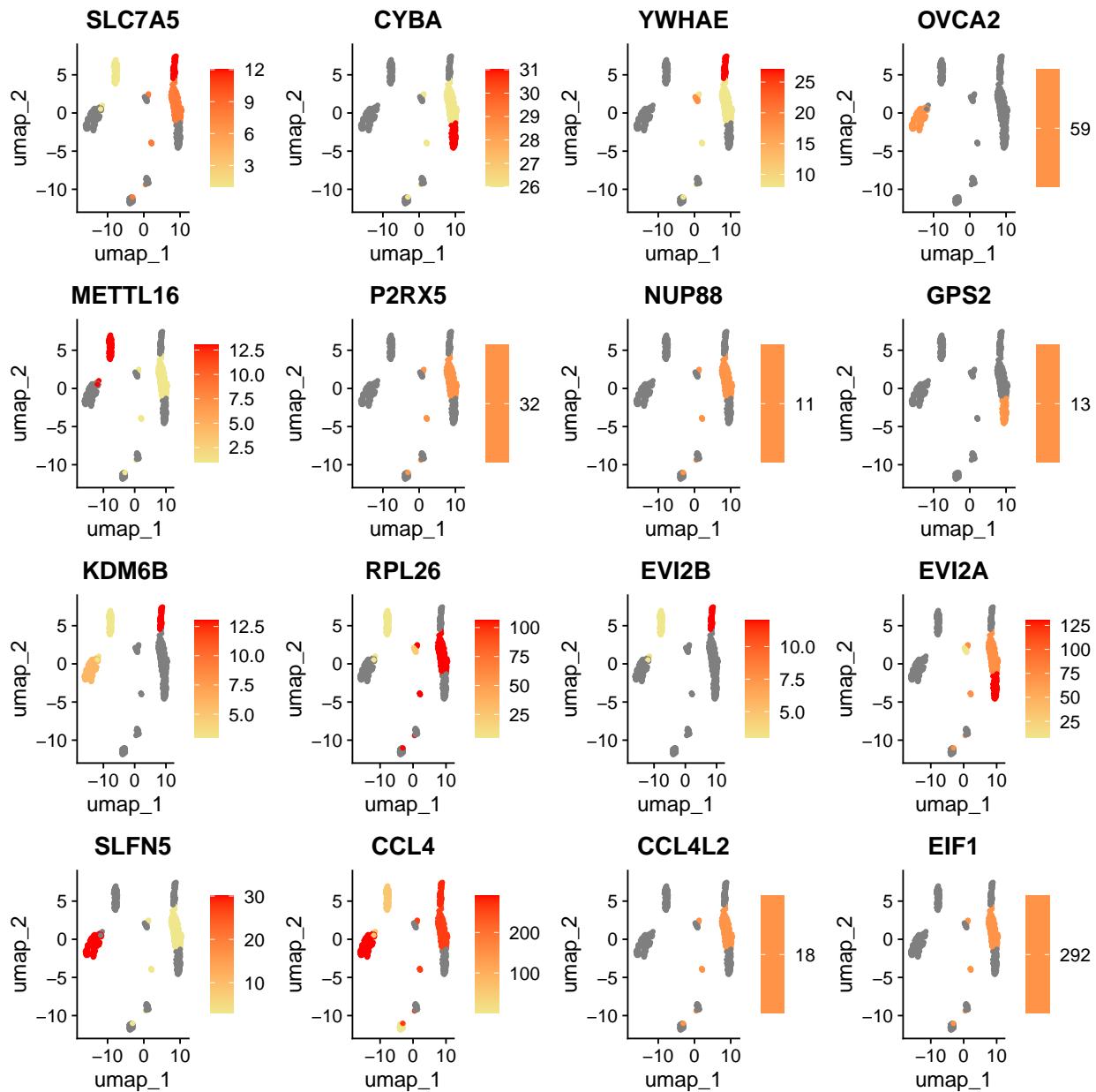
```
##  
## $`9`
```



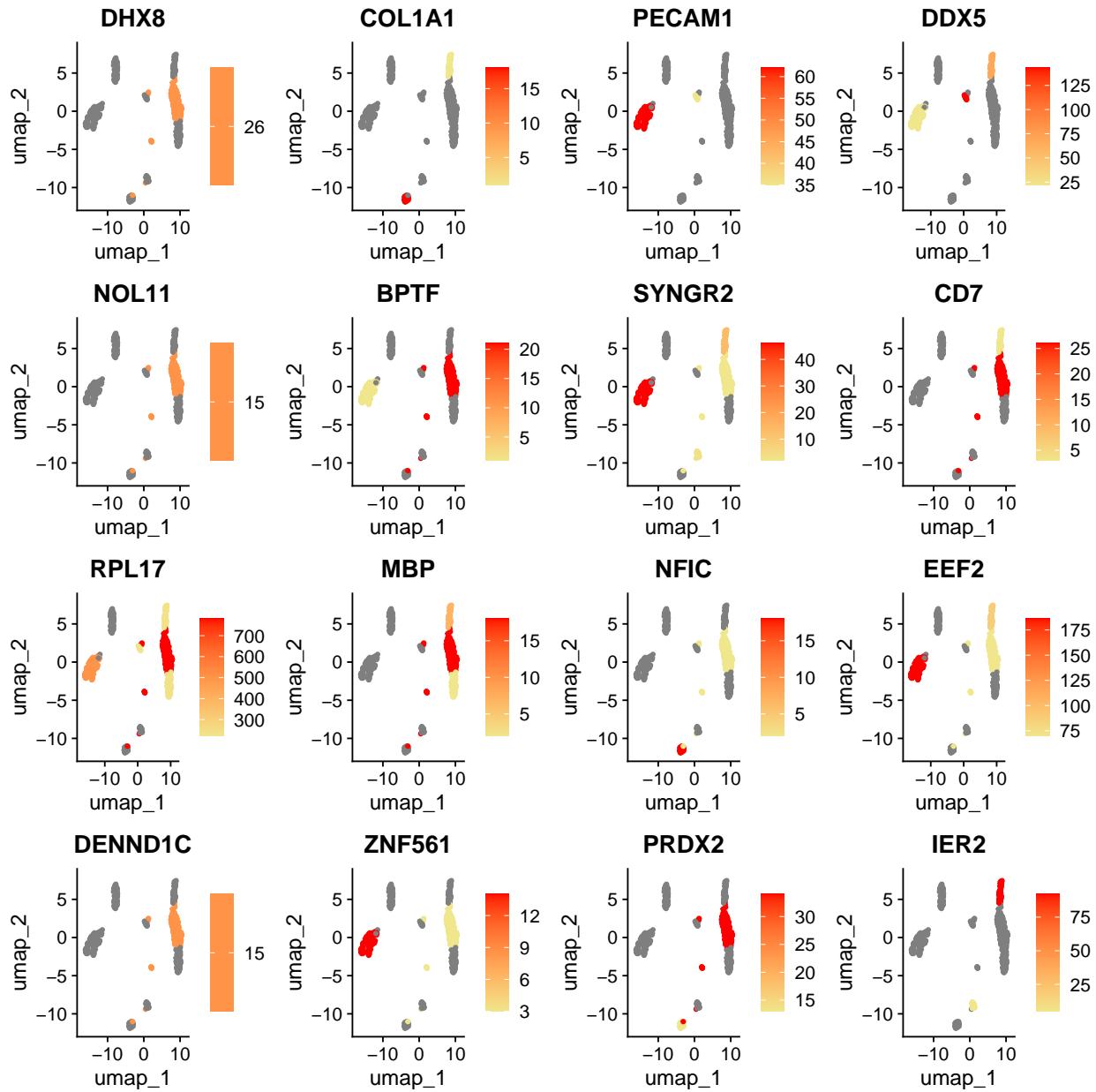
```
##  
## $`10`
```



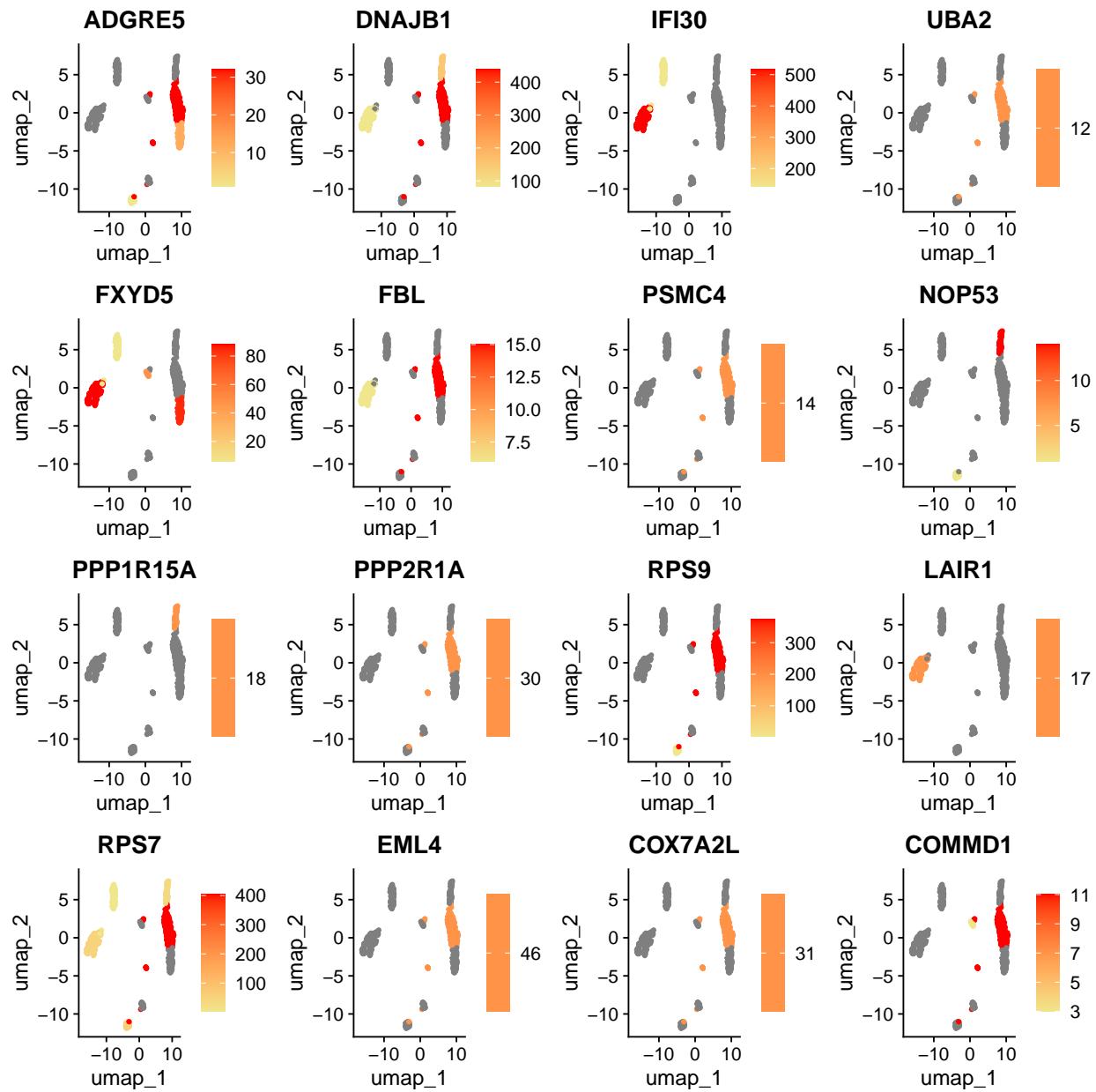
```
##  
## $`11`
```



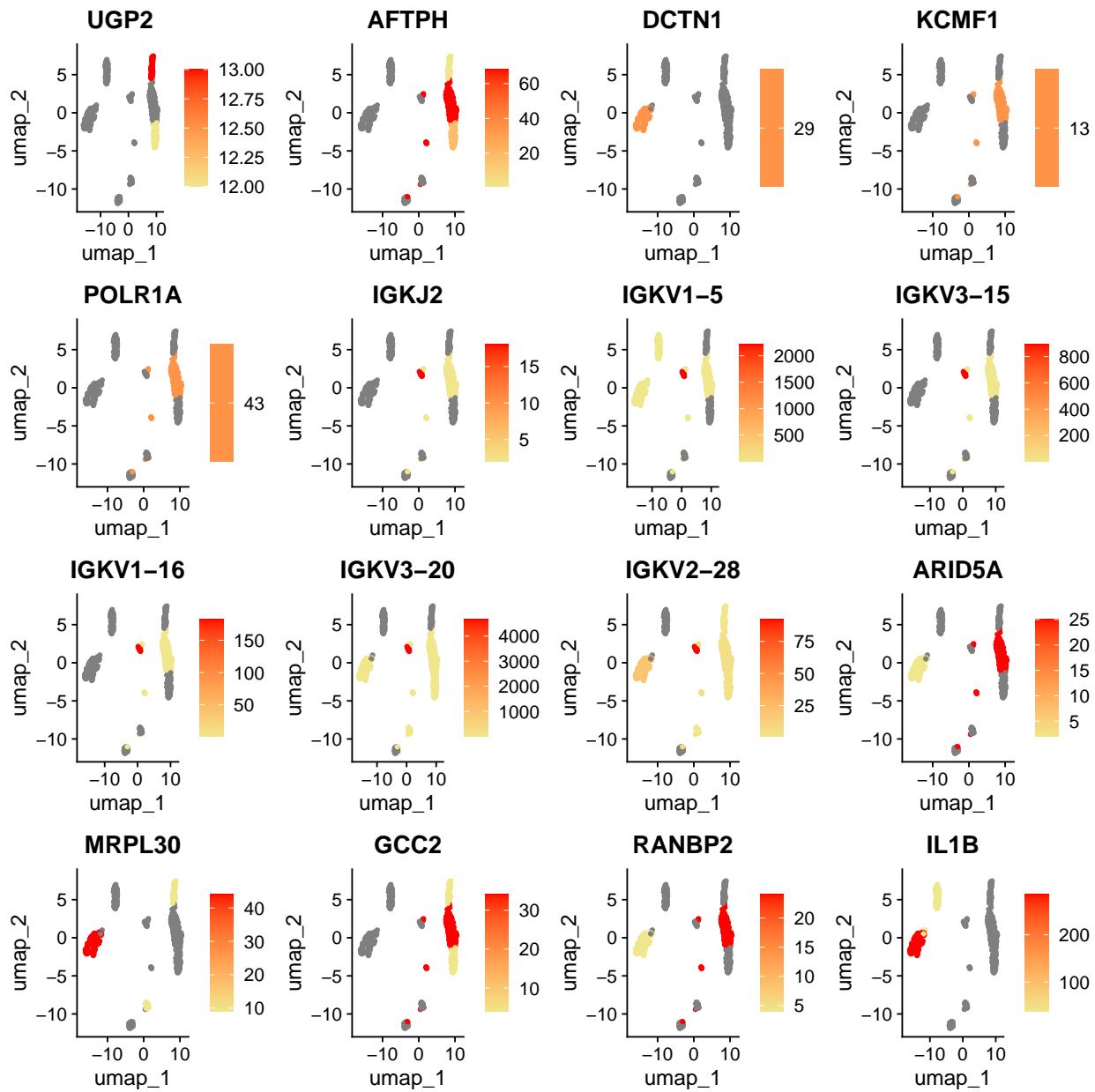
```
##  
## $`12`
```



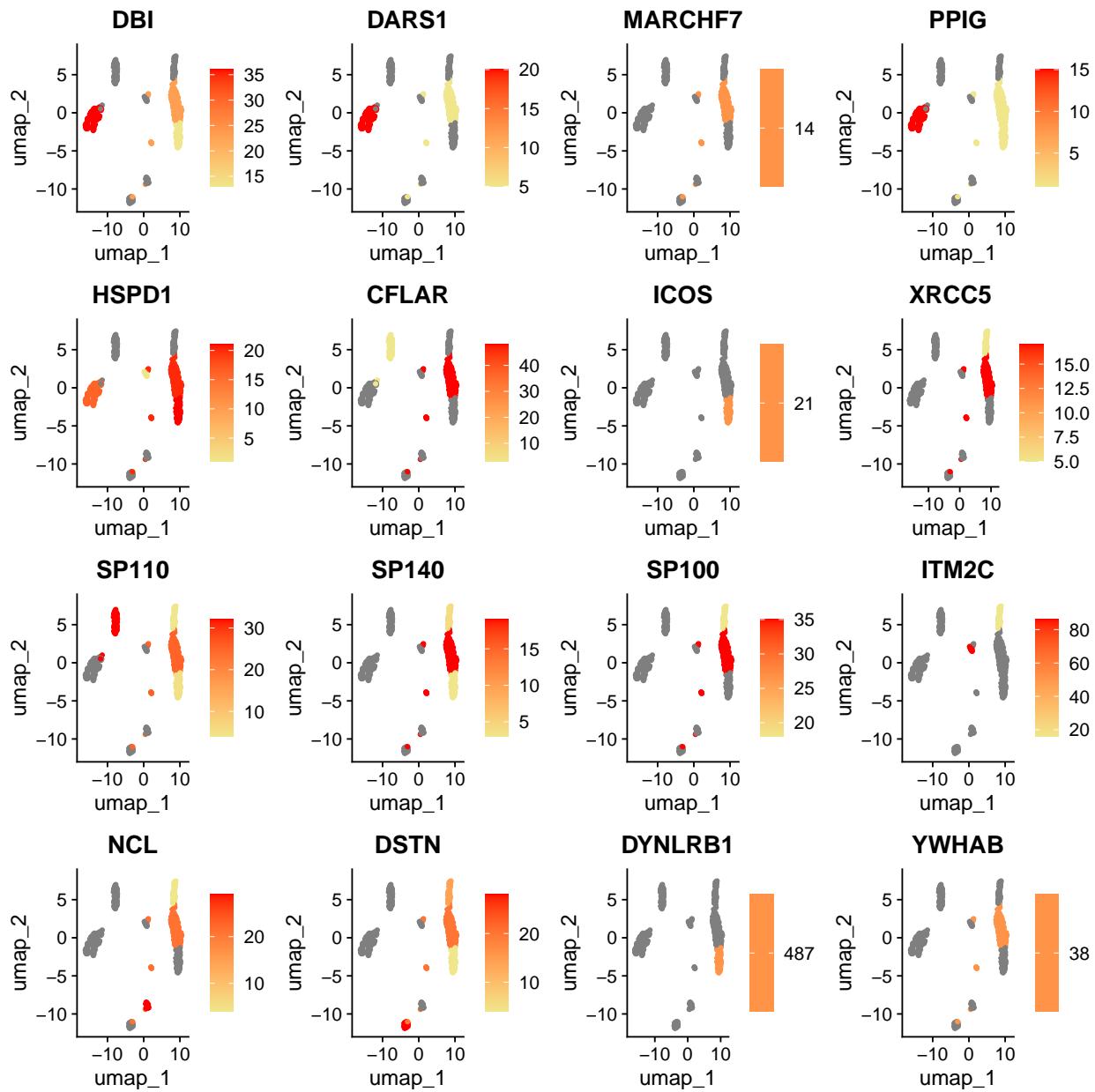
```
##  
## $`13`
```



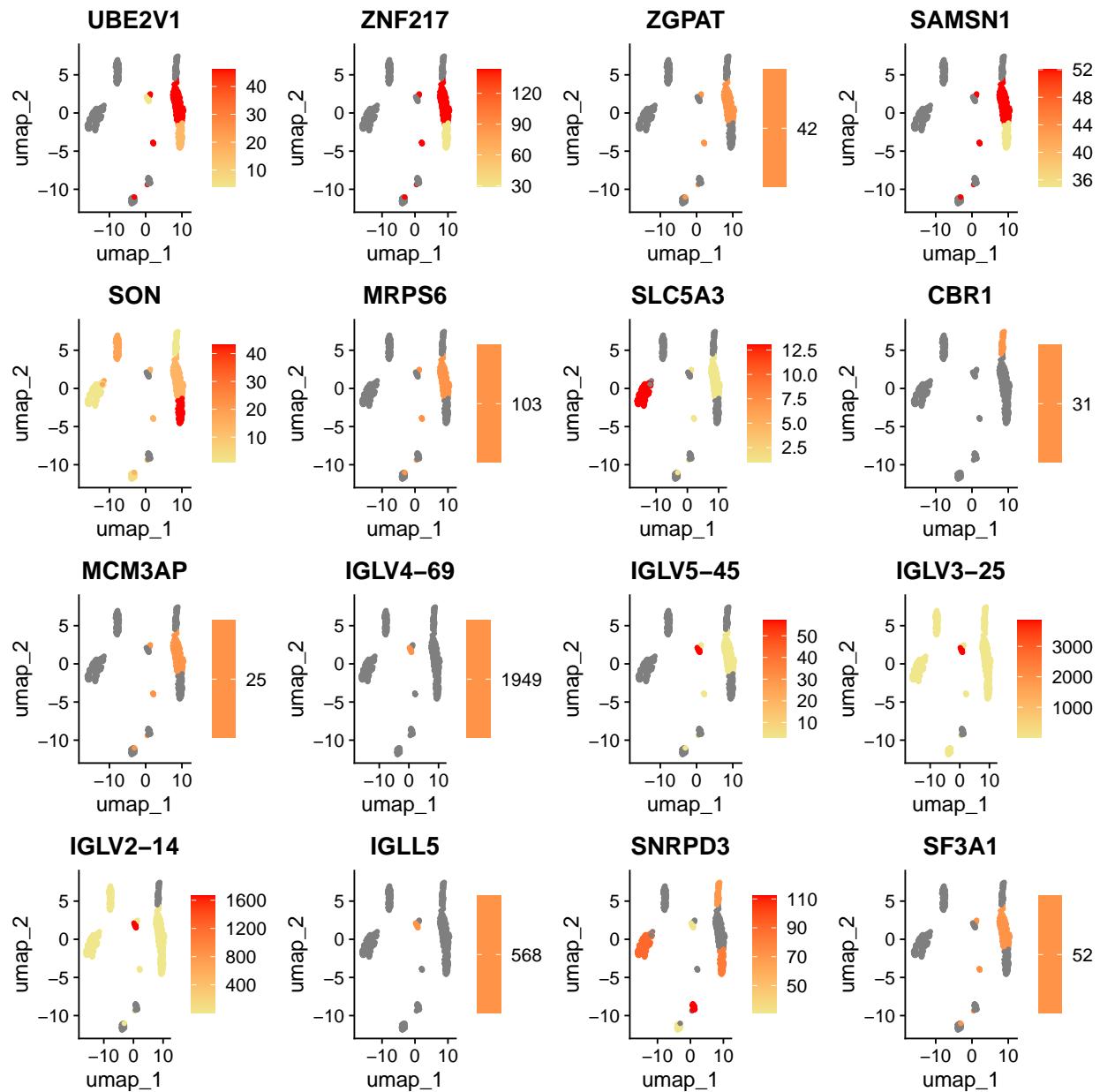
```
##  
## $`14`
```



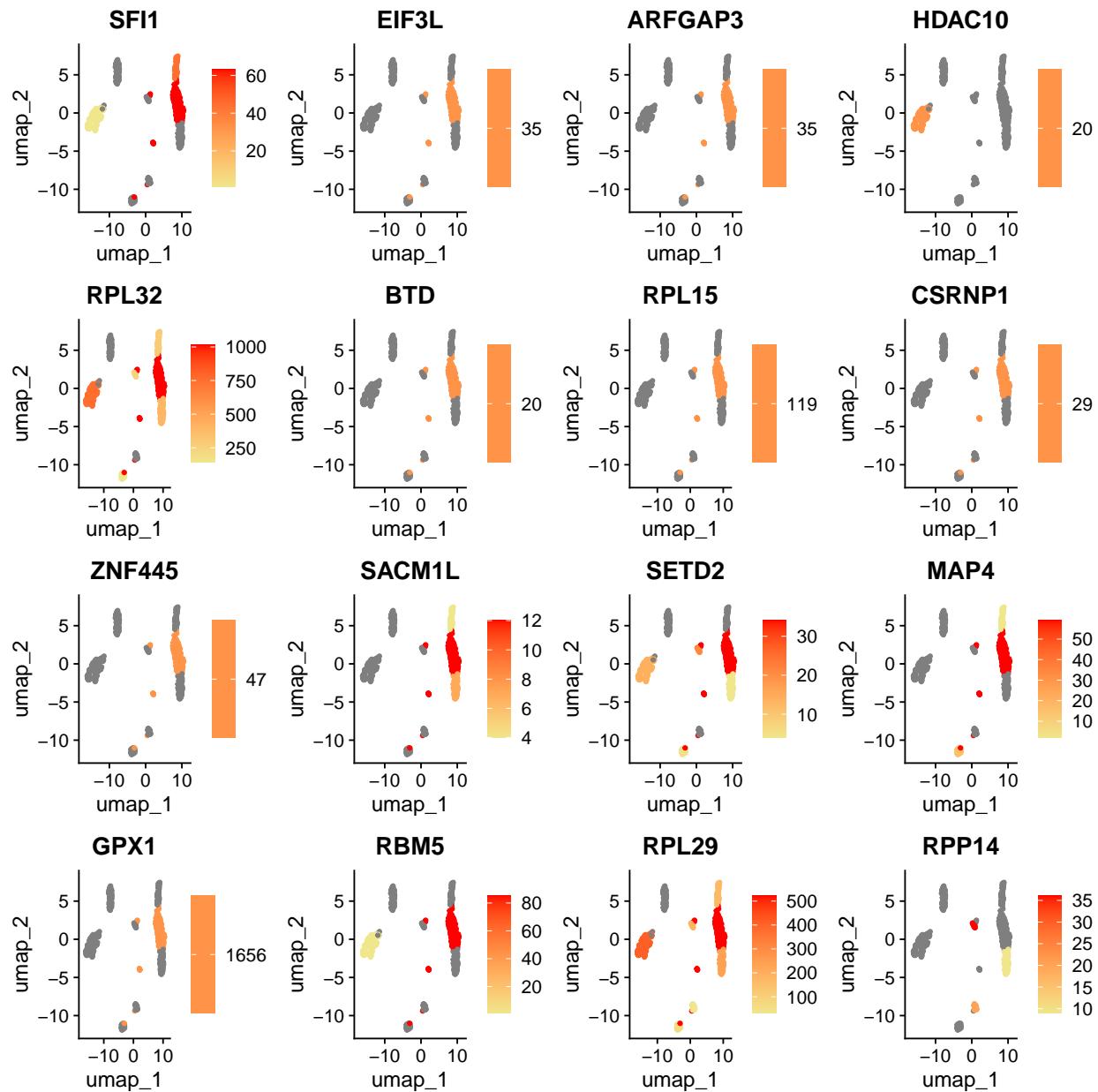
```
##  
## $`15`
```



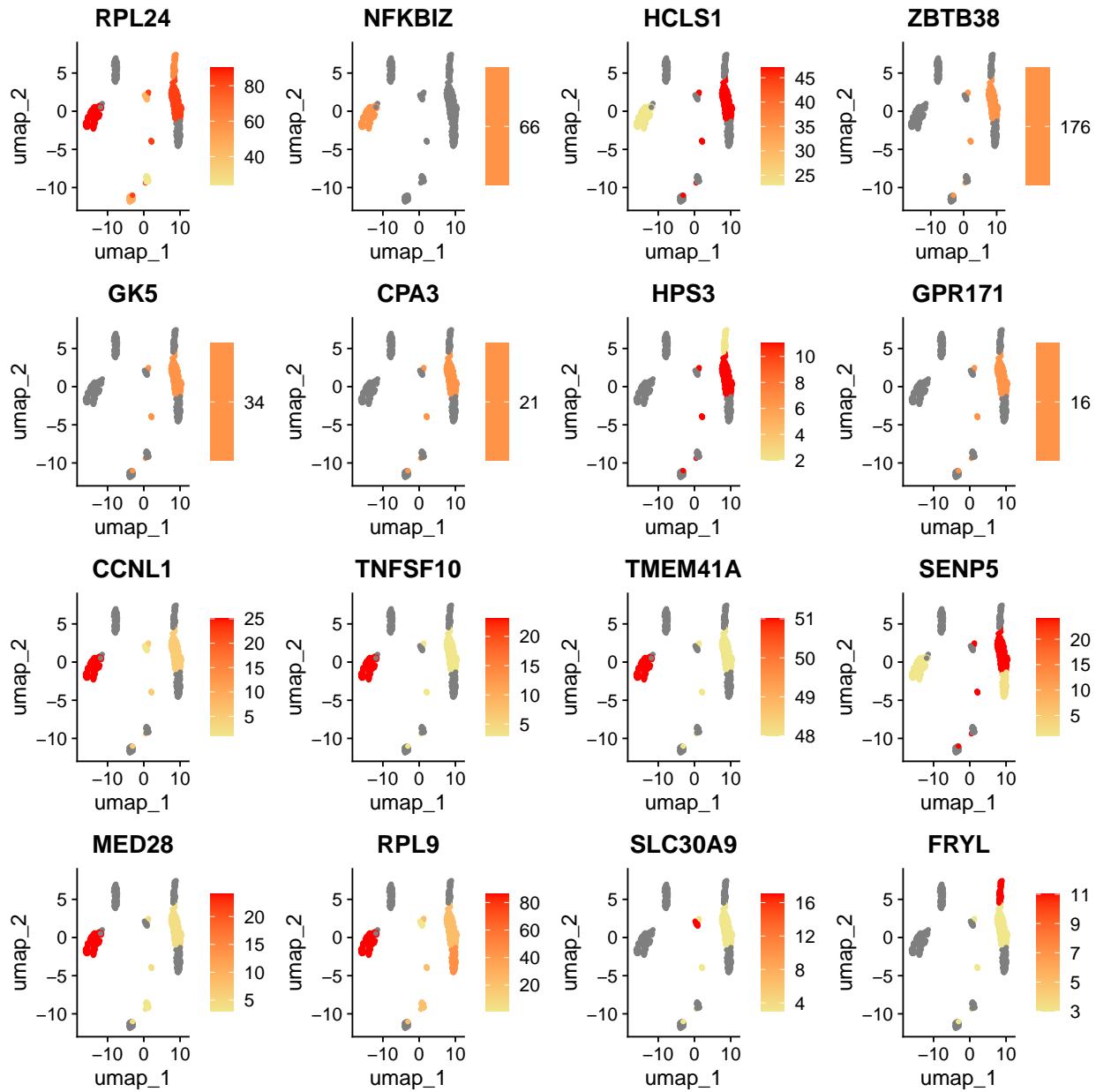
```
##  
## $`16`
```



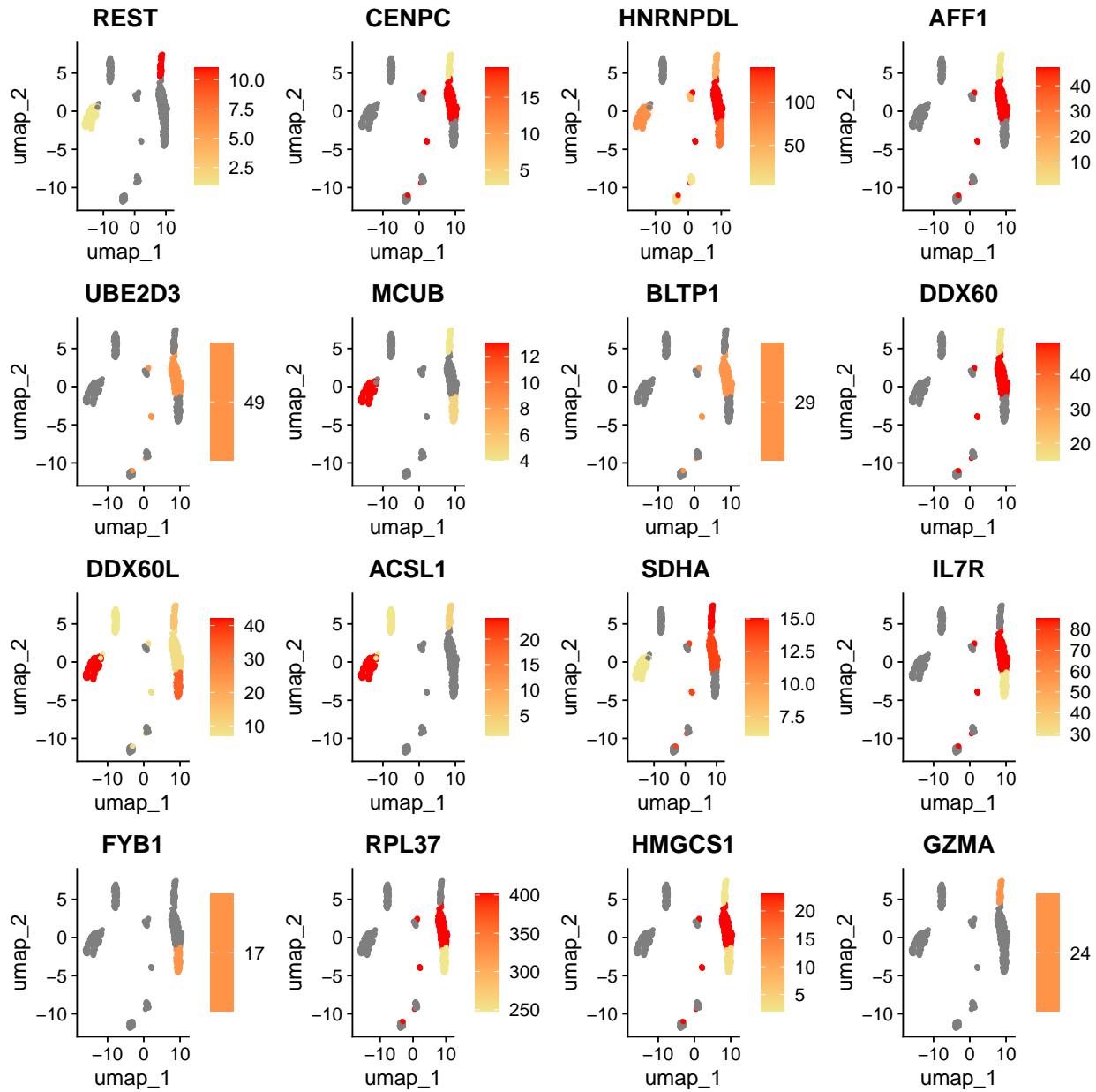
```
##  
## $`^17`
```



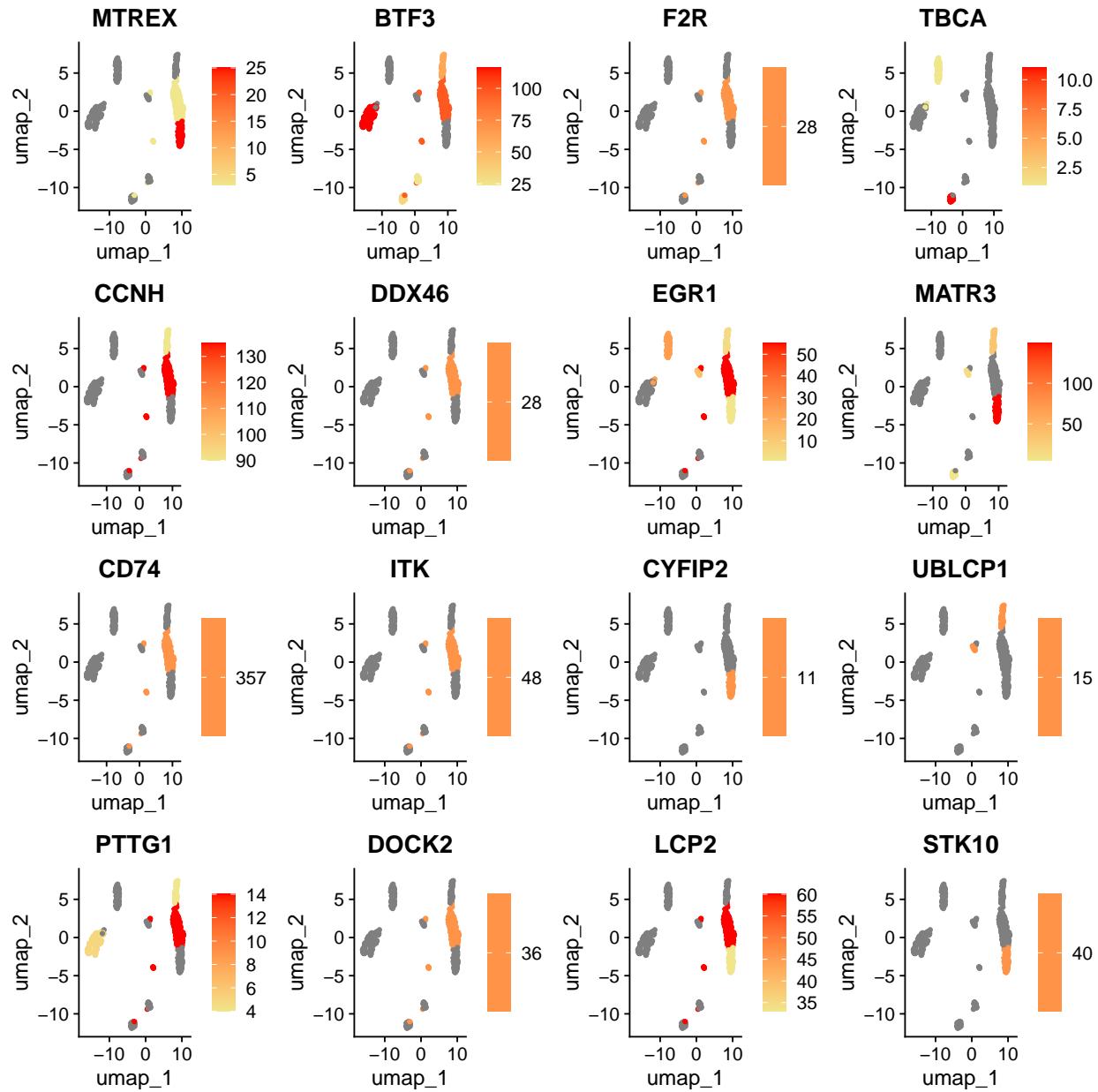
```
##  
## $`^18`
```



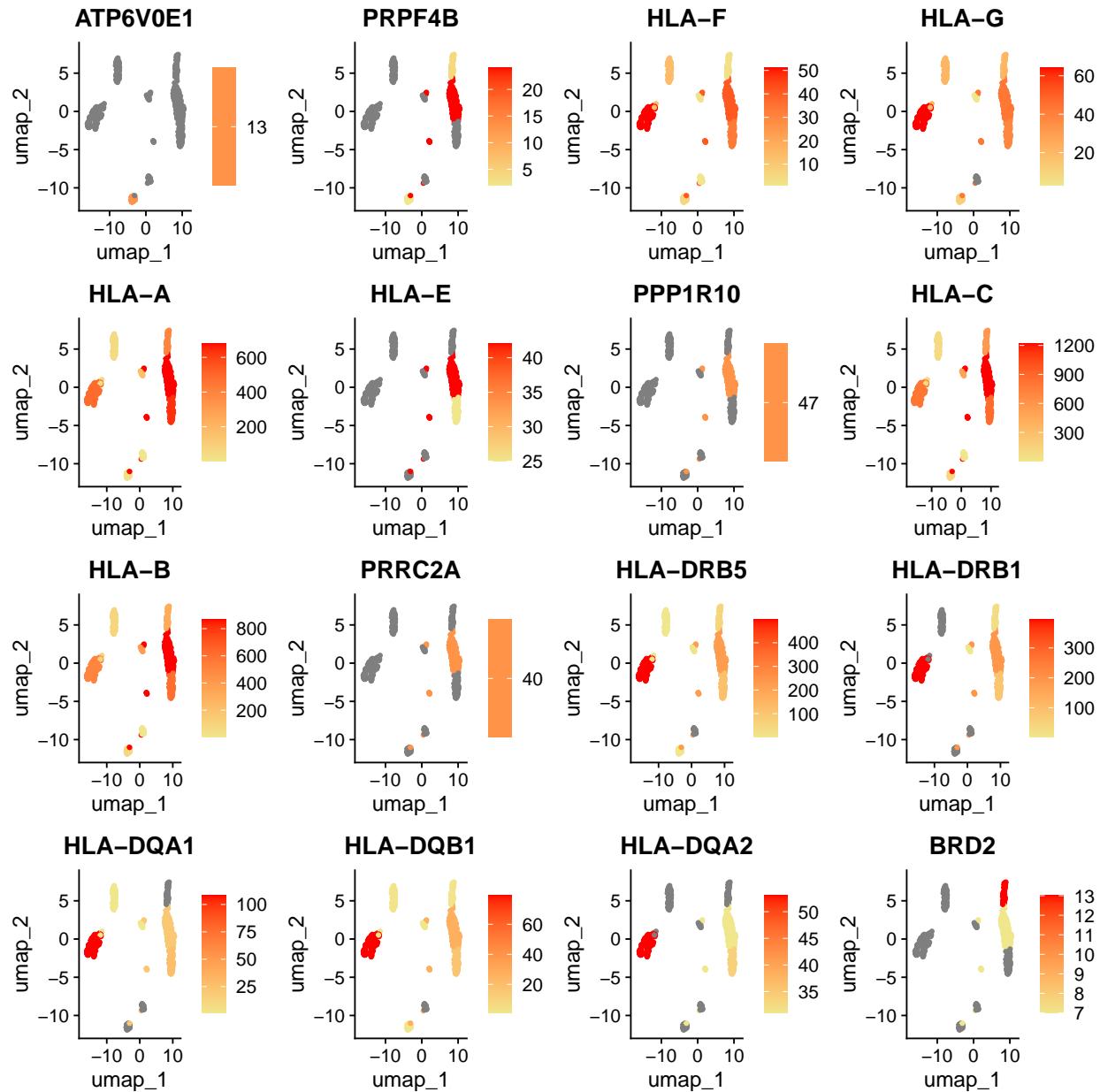
```
##  
## $`19`
```



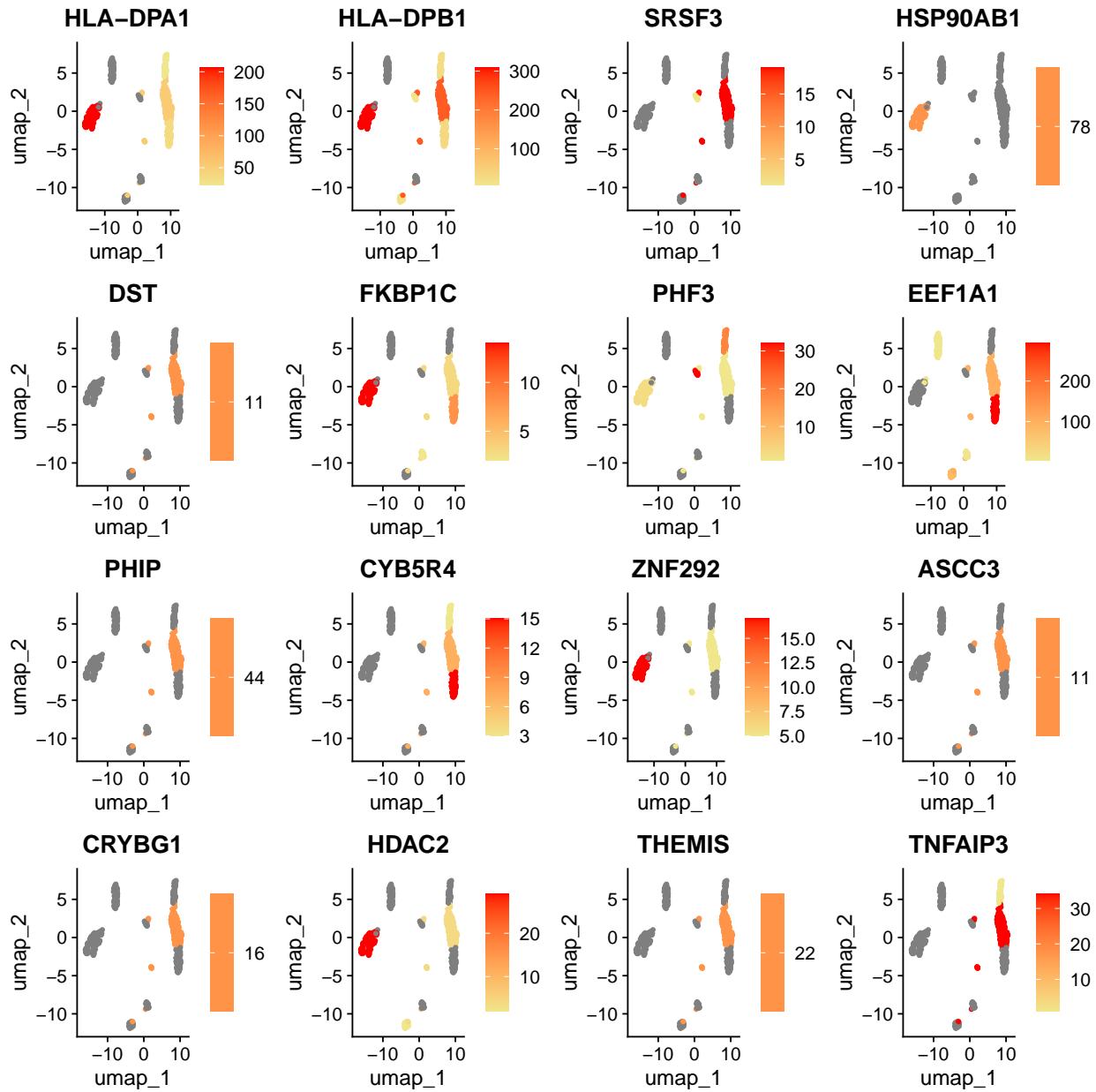
```
##  
## $`20`
```



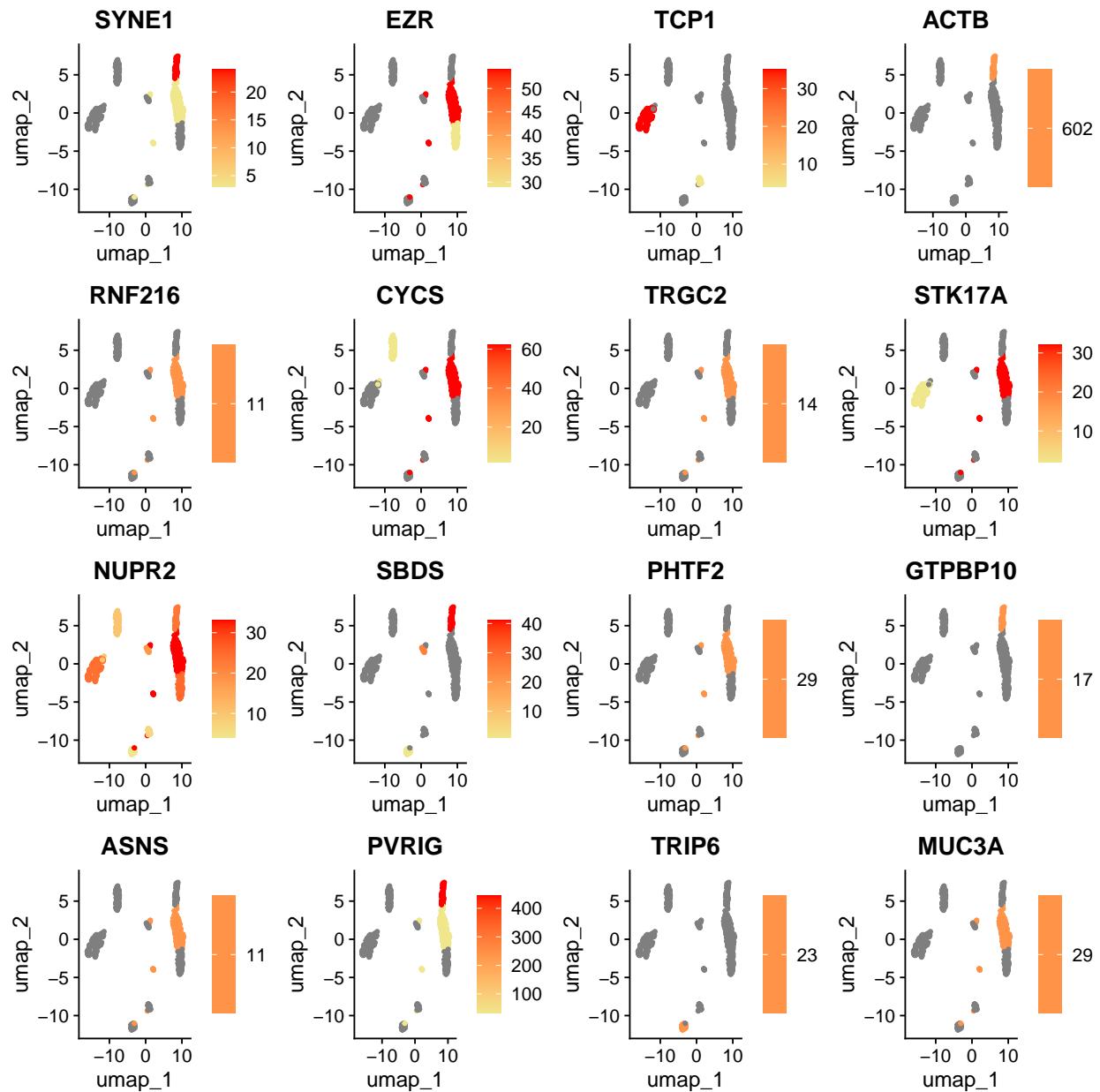
```
##  
## $`21`
```



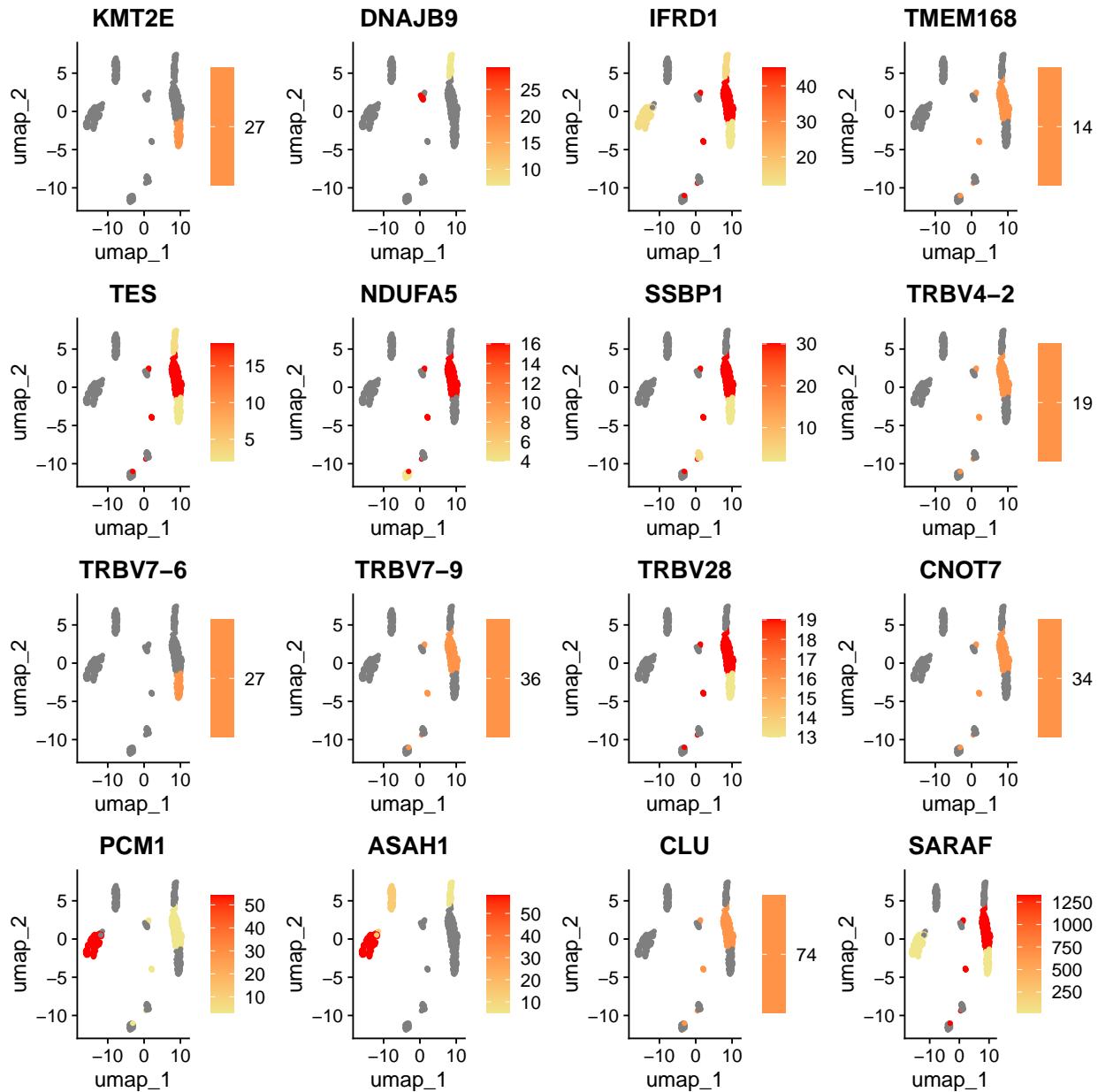
```
##  
## $`22`
```



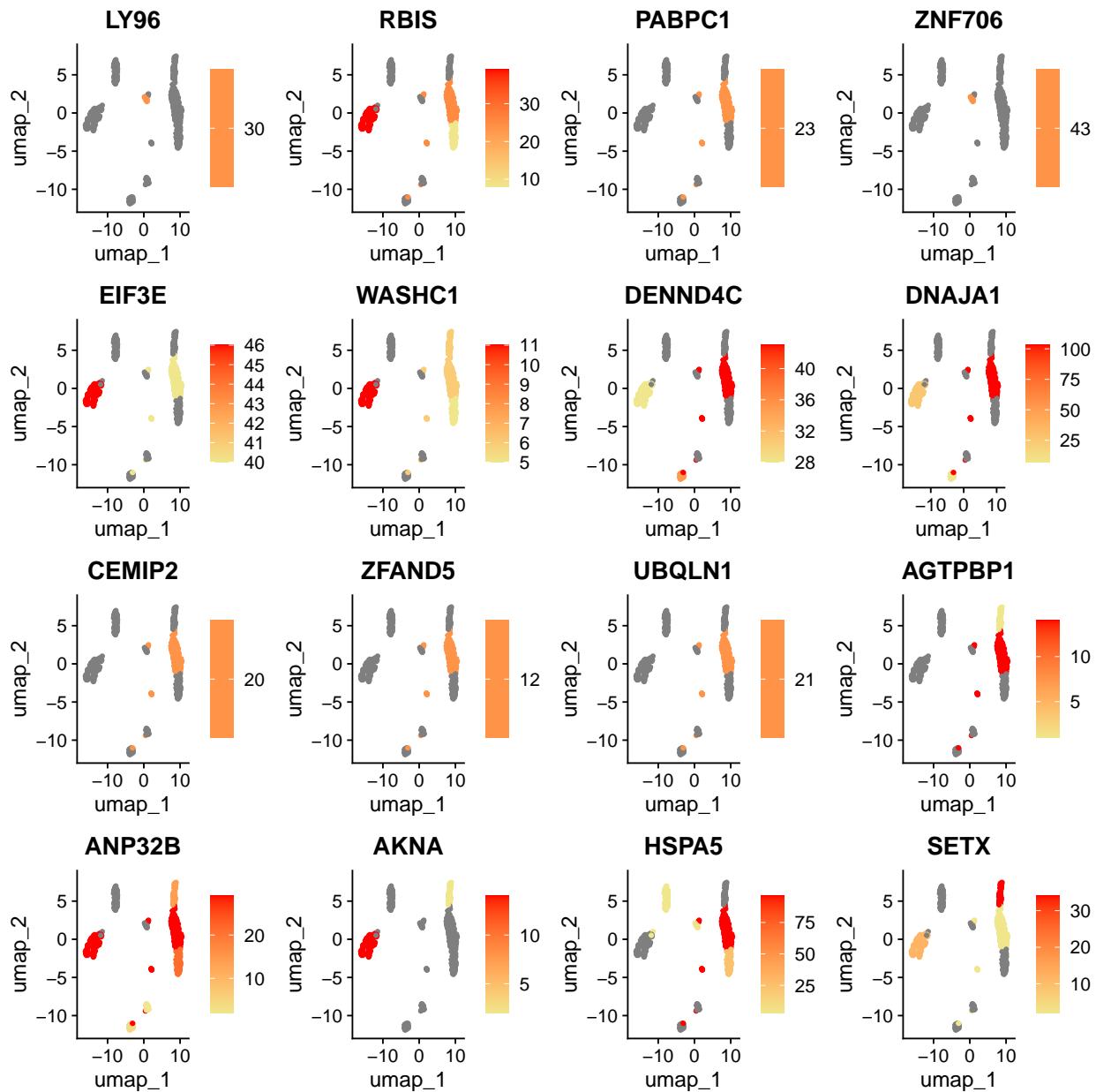
```
##  
## $`23`
```



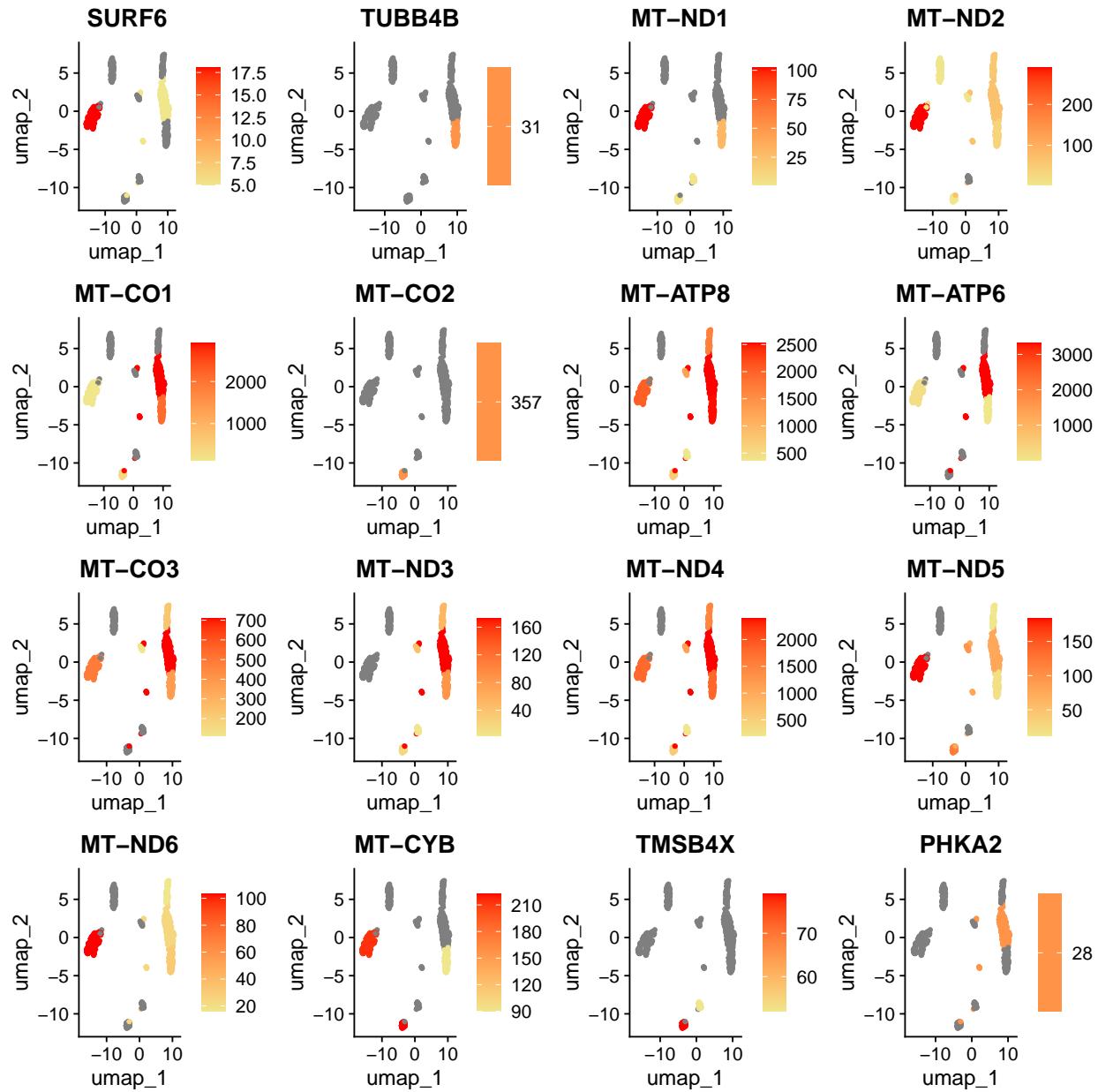
```
##  
## $`24`
```



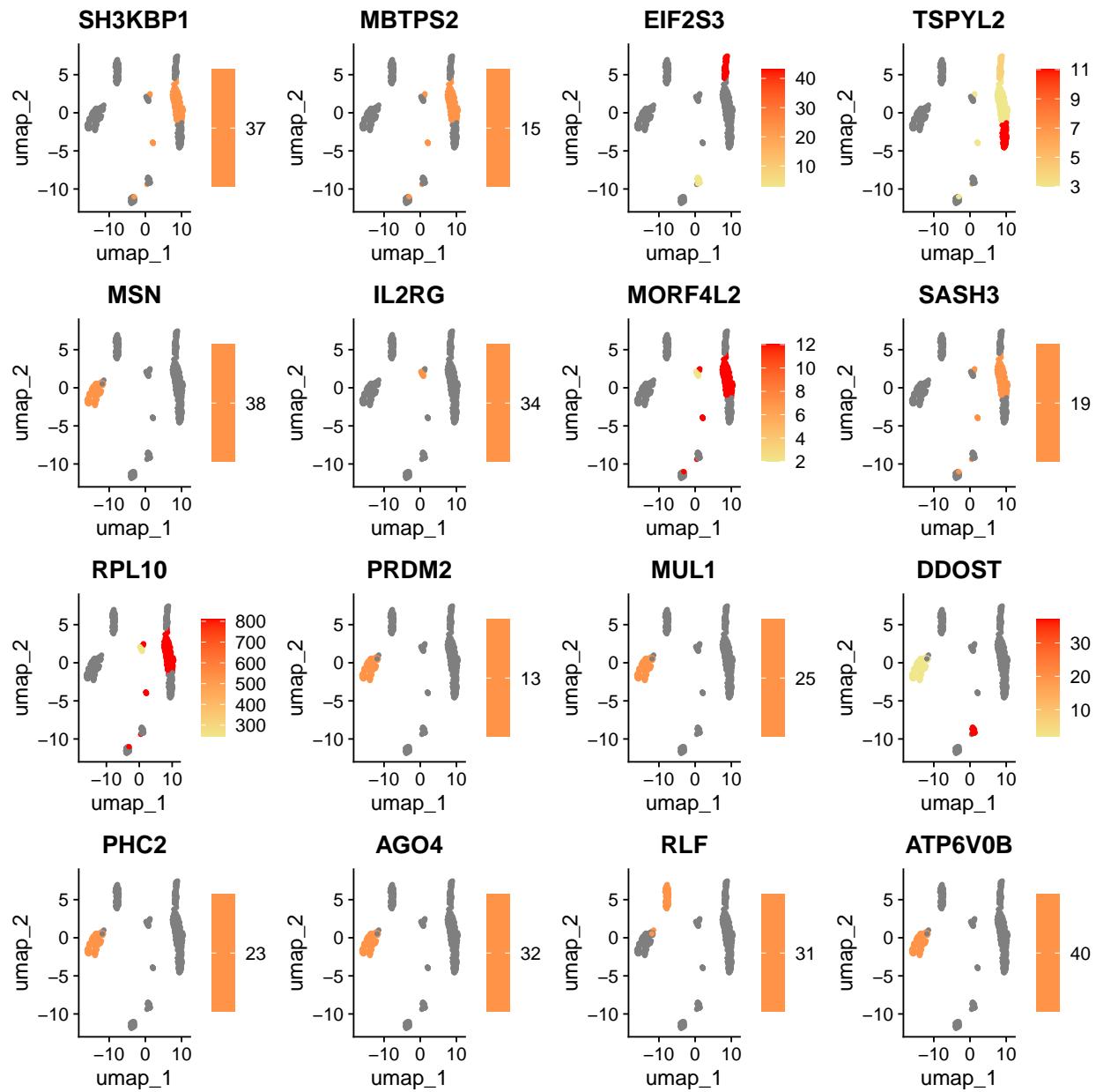
```
##  
## $`25`
```



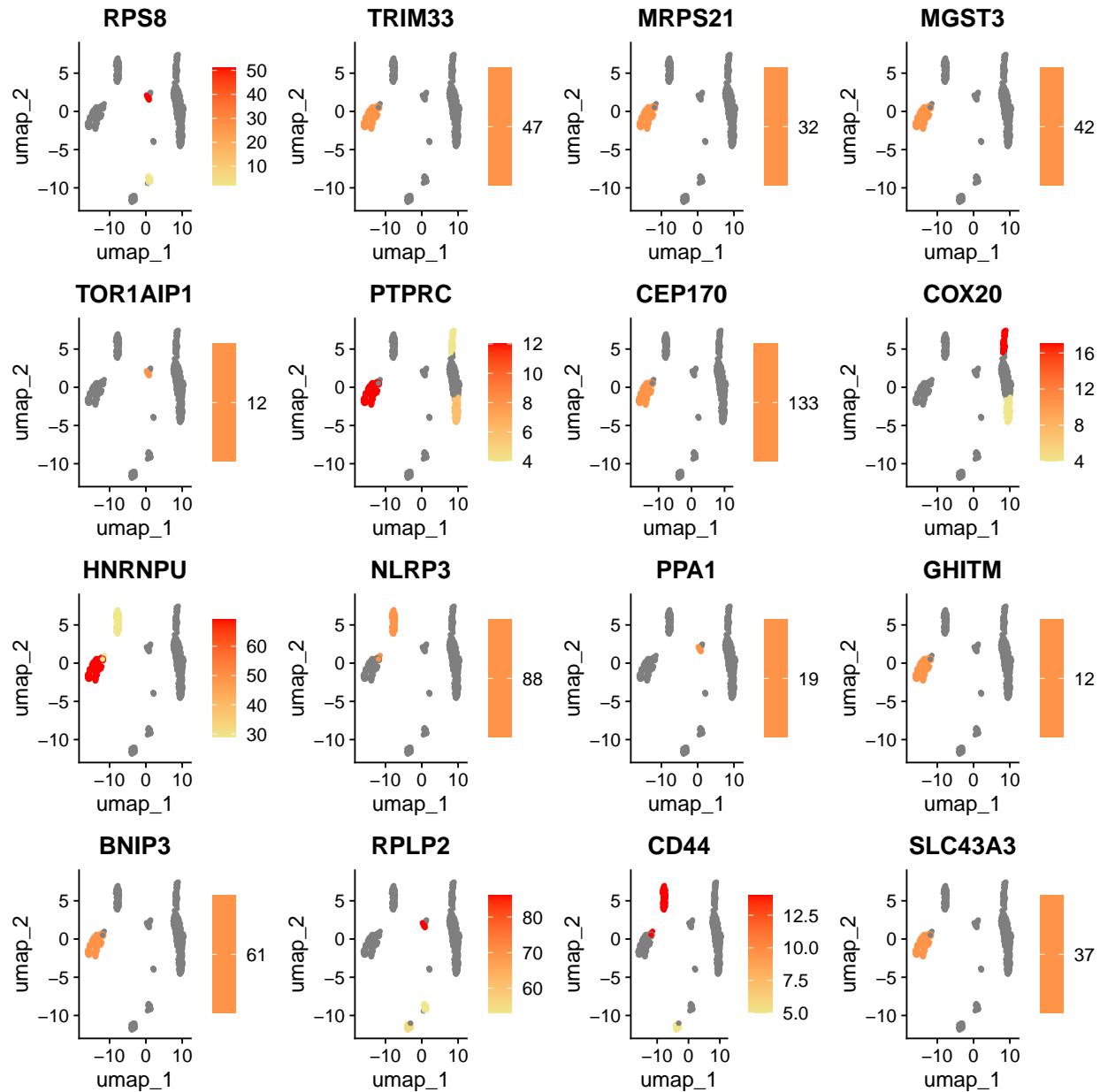
```
##  
## $^26`
```



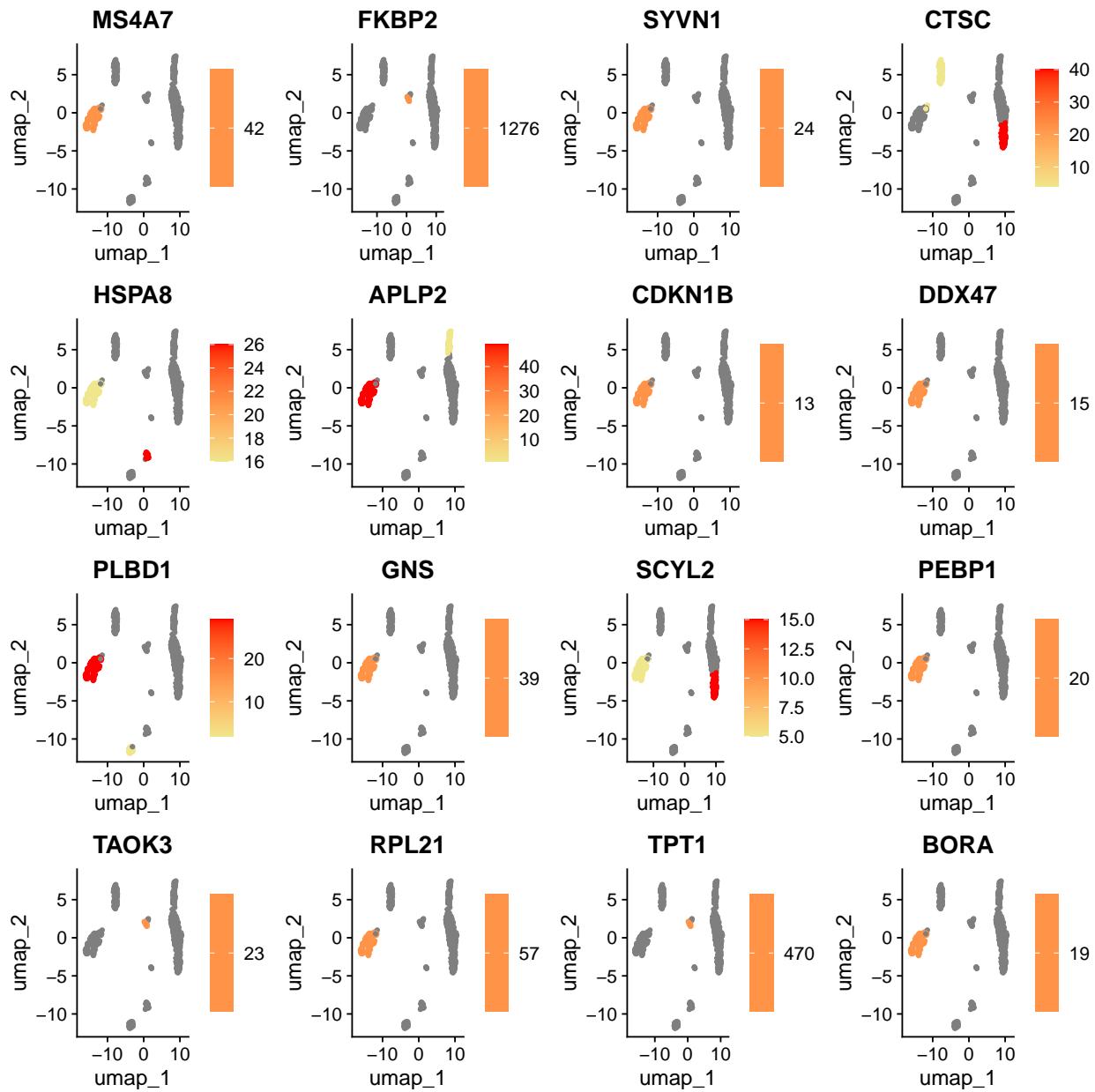
```
##  
## $^27`
```



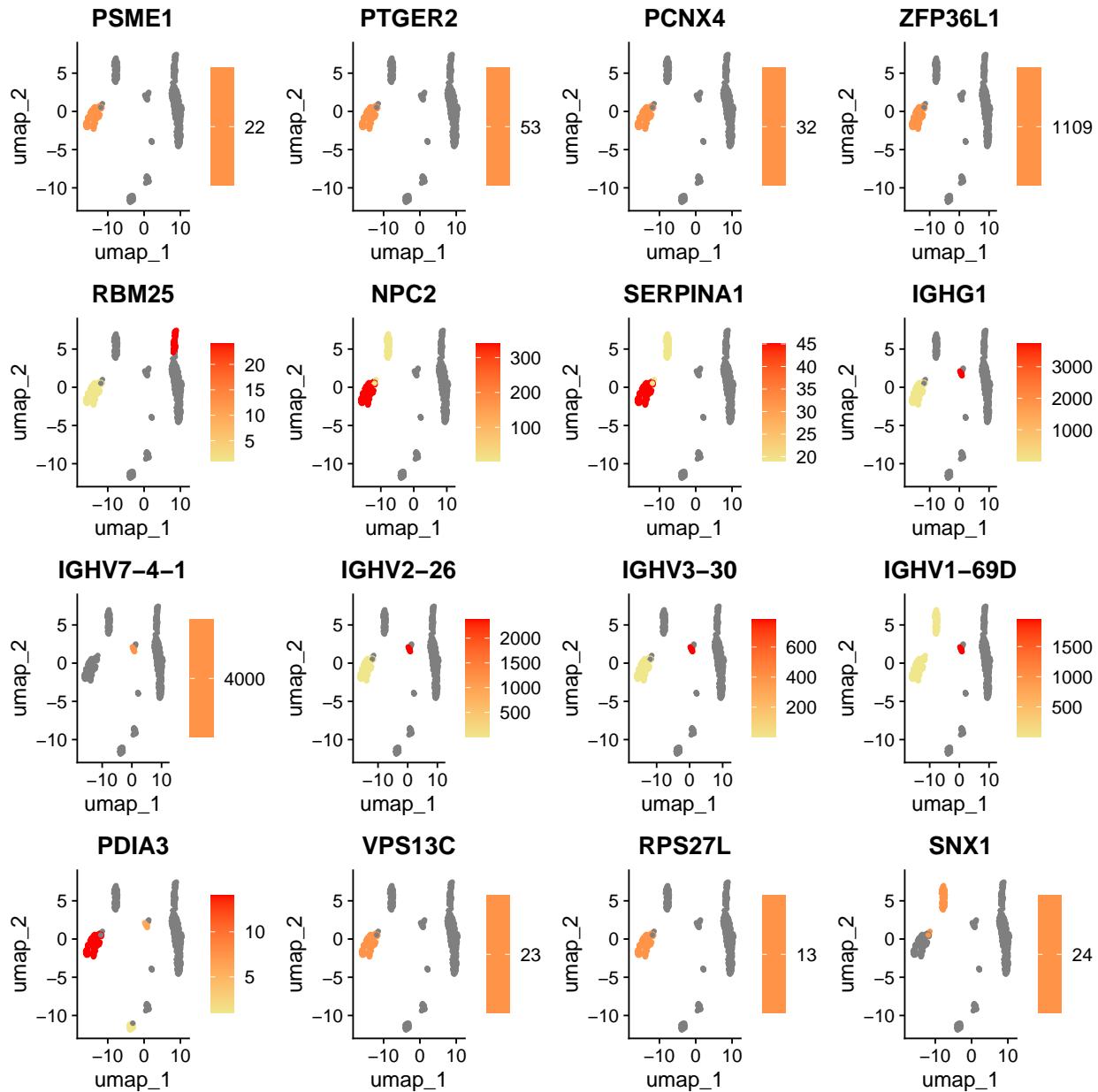
```
##  
## $^28`
```



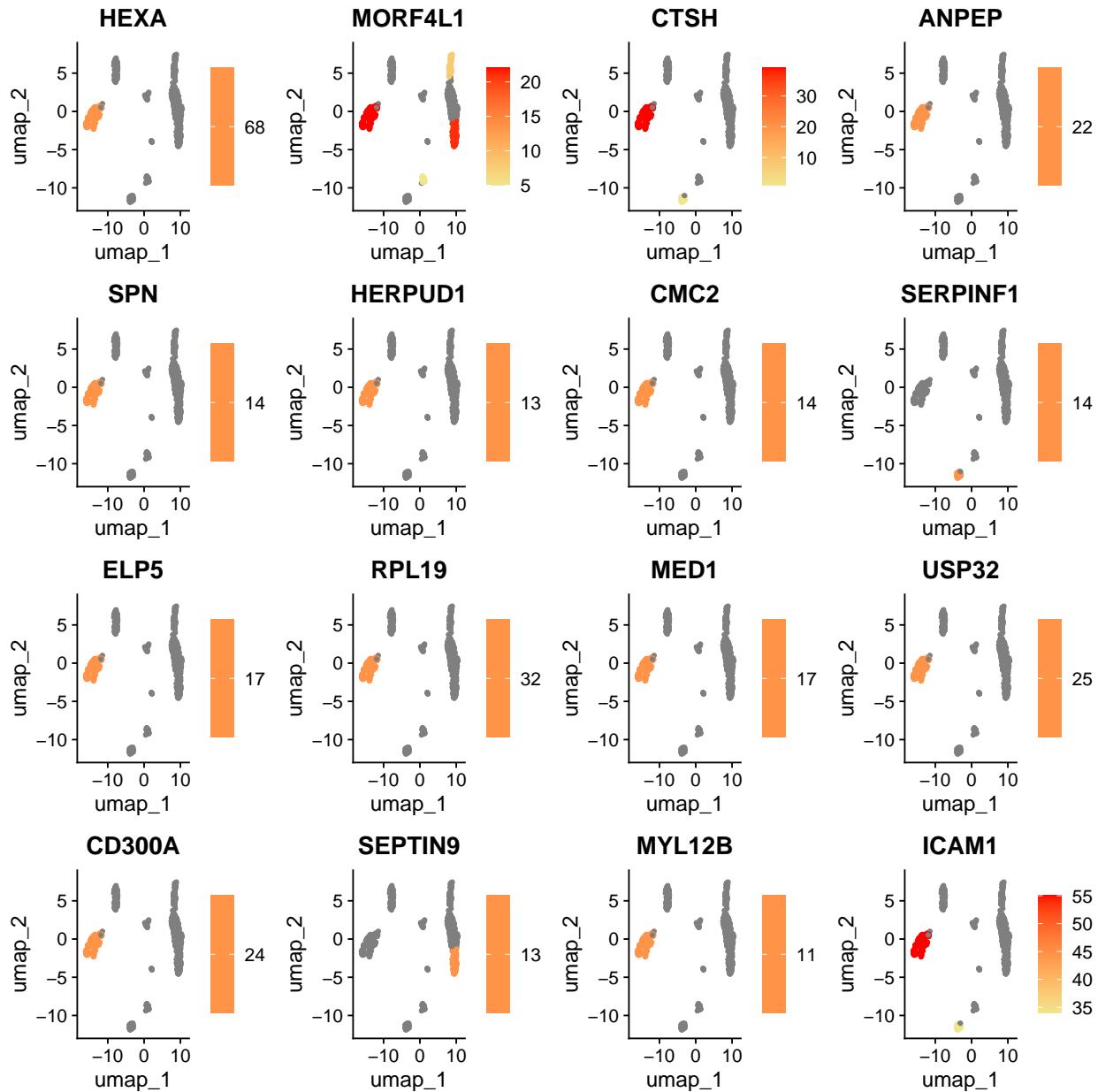
```
##  
## $^29`
```



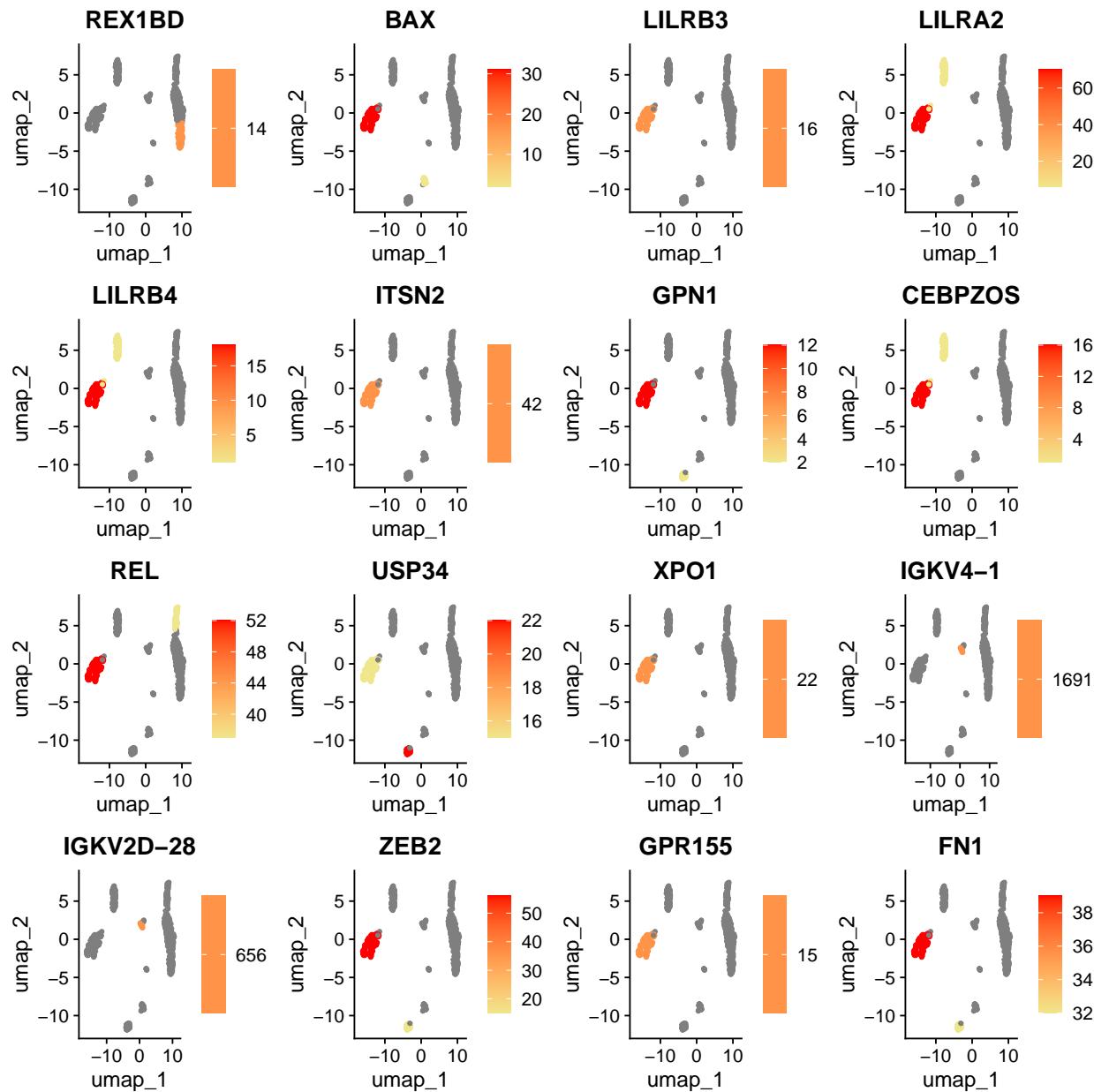
```
##  
## $`30`
```



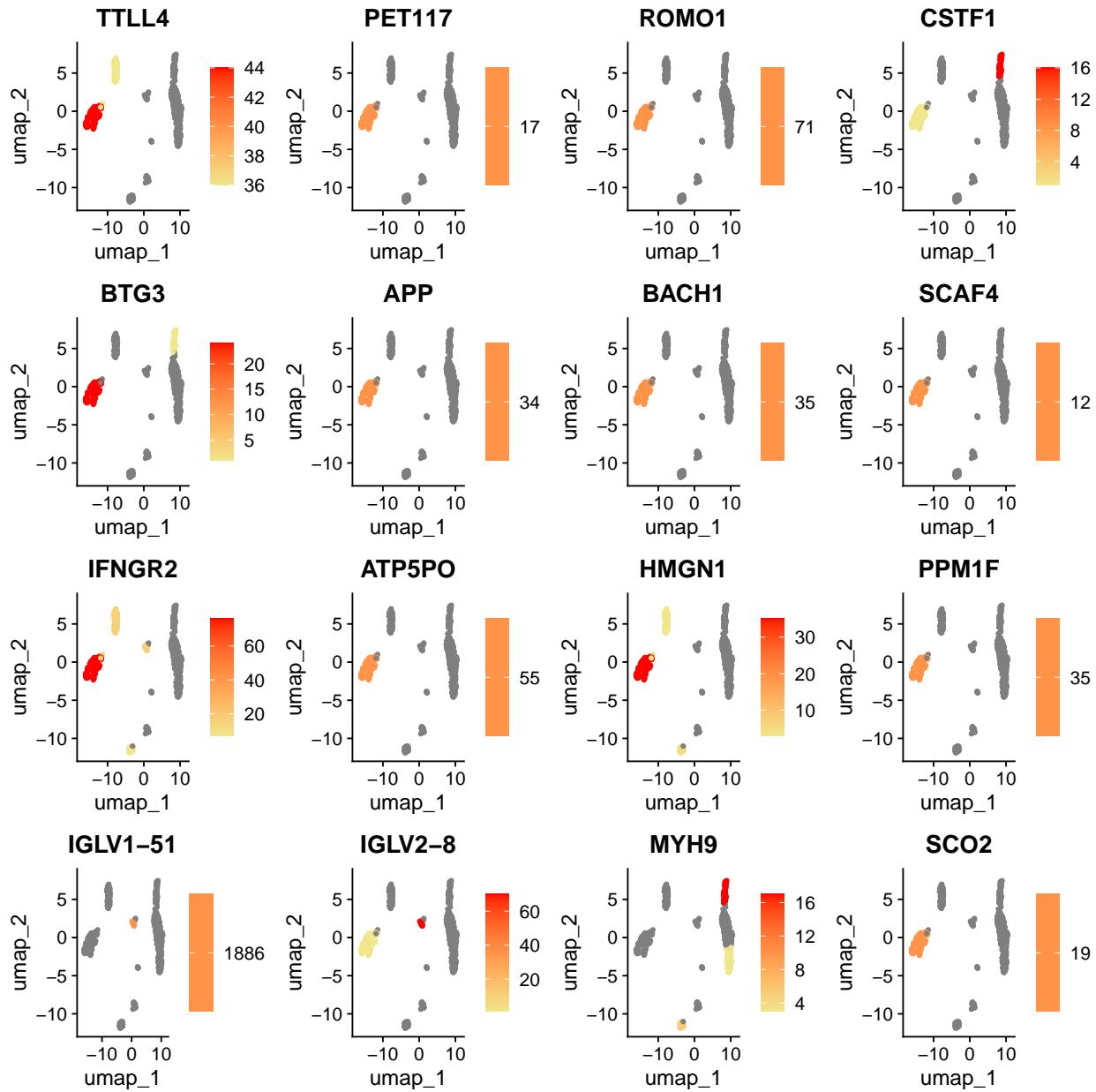
```
##  
## $`31`
```



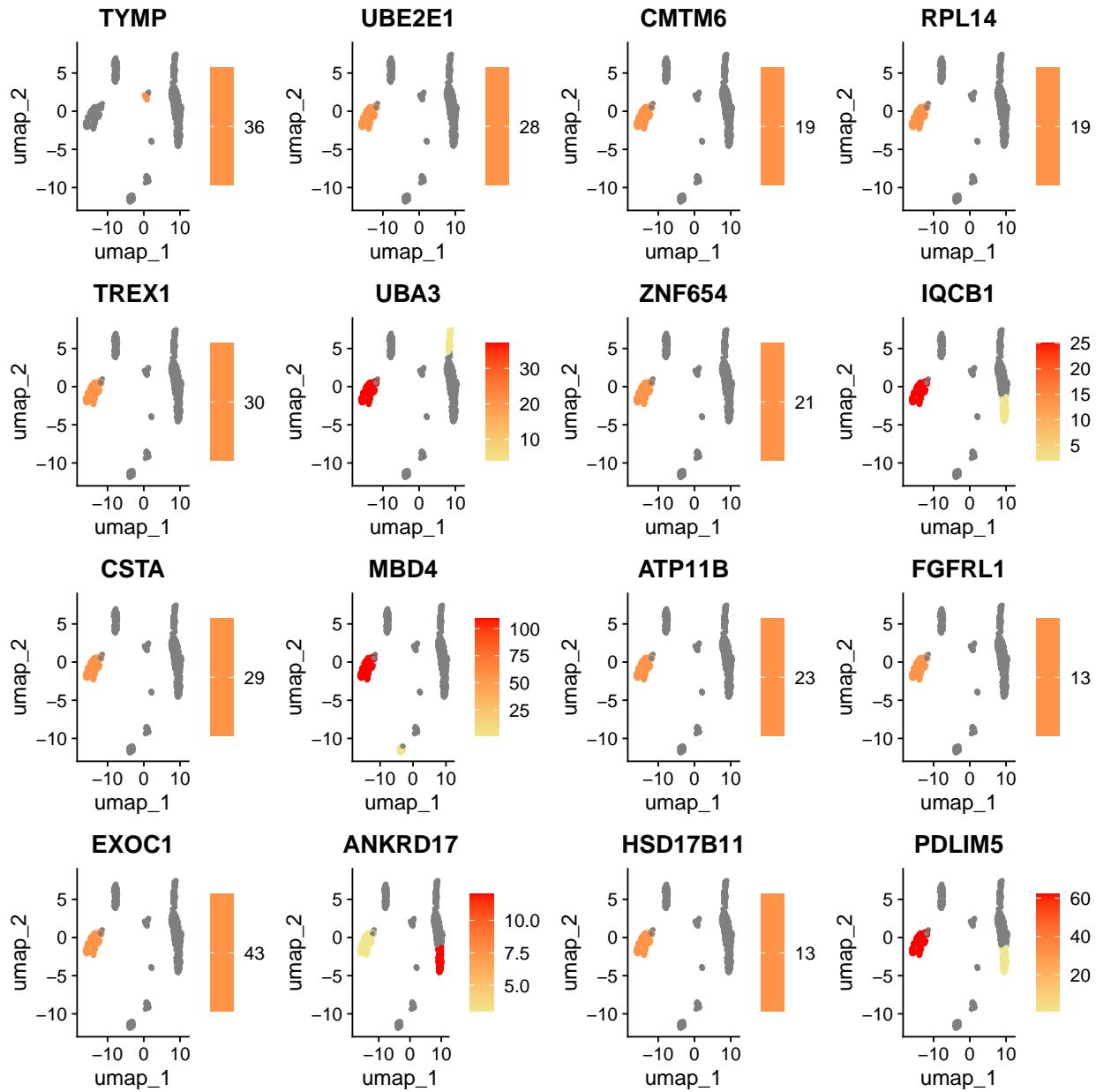
```
##  
## $`32`
```



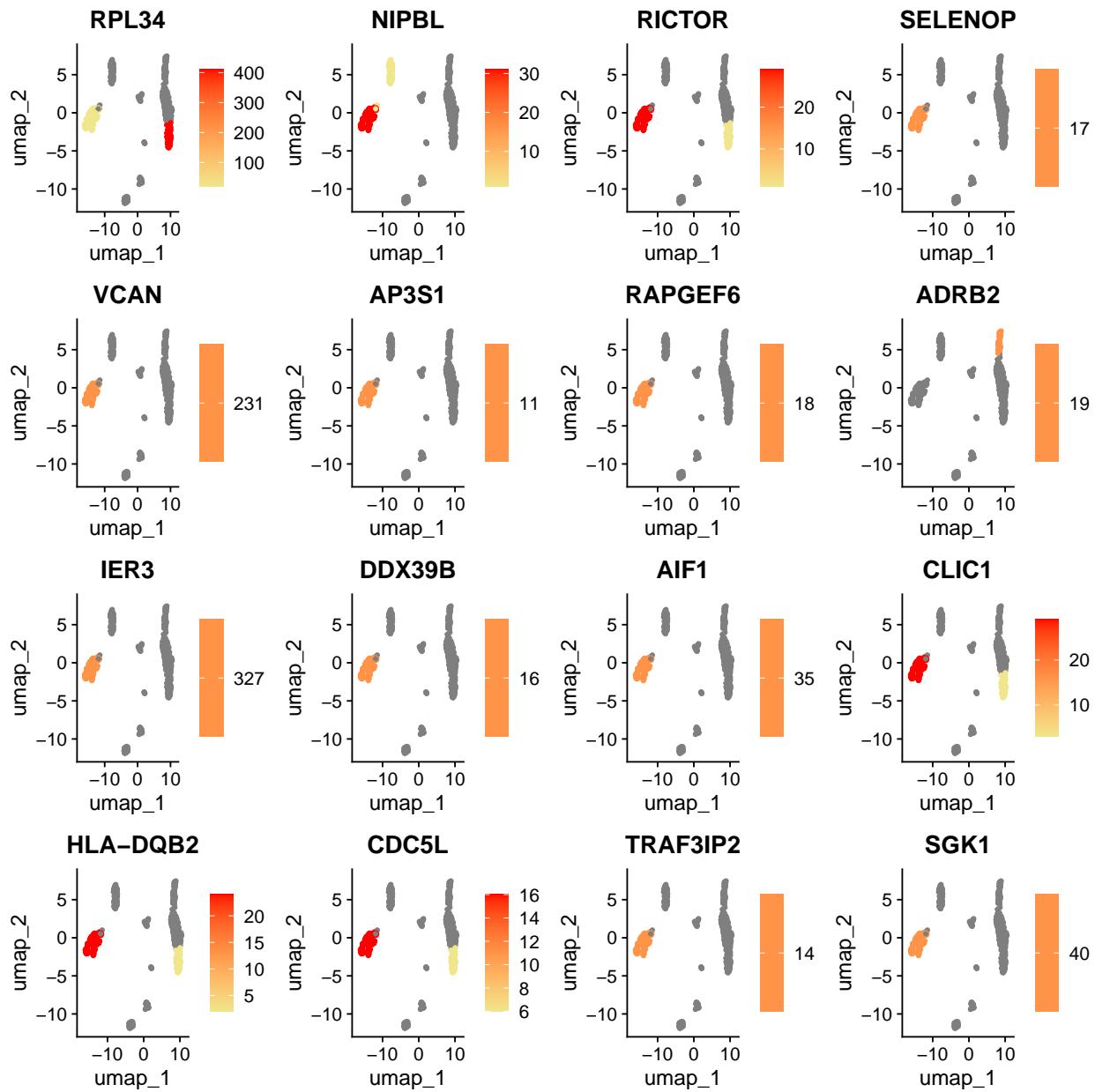
```
##  
## $`33`
```



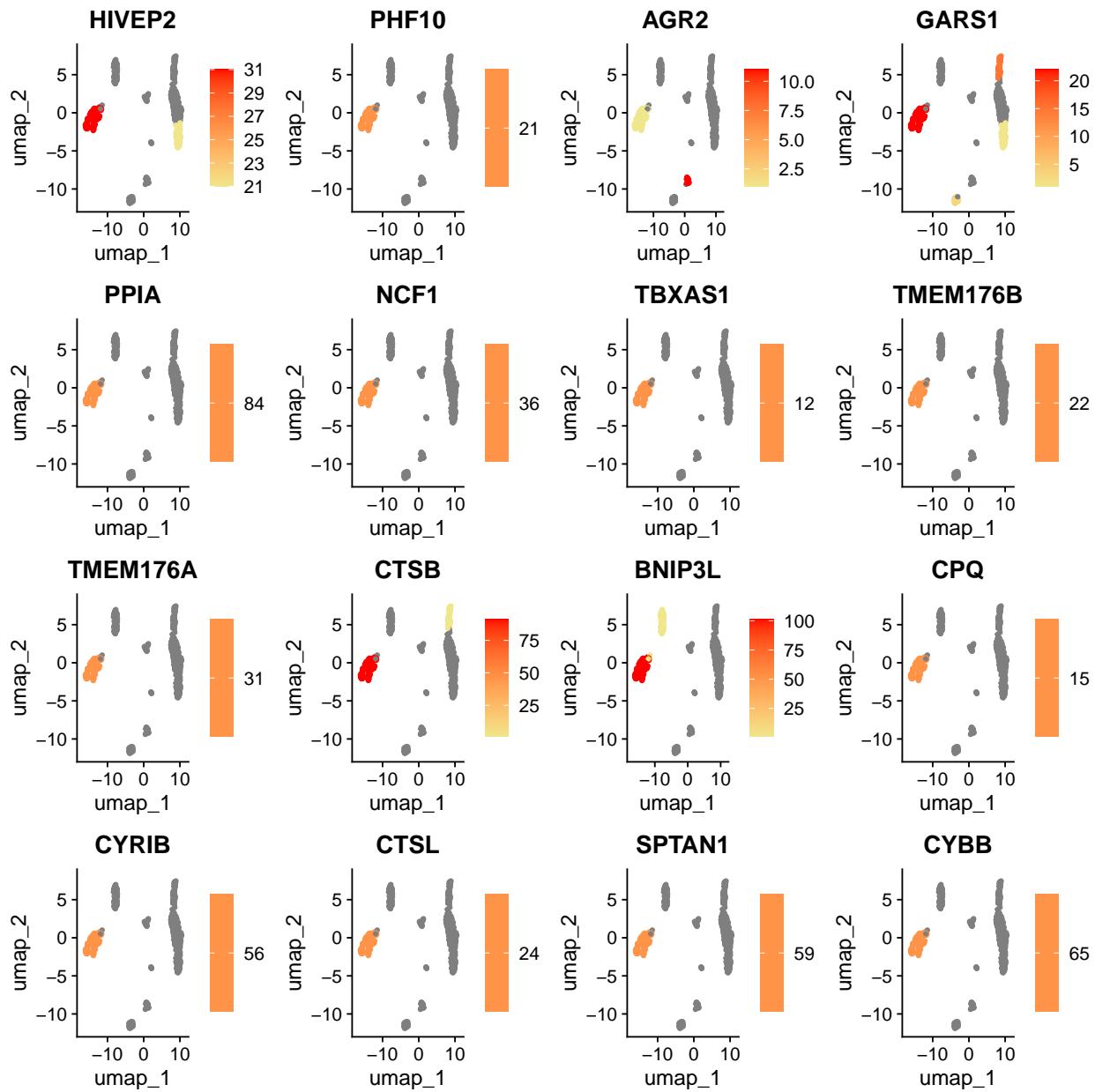
```
##  
## $`34`
```



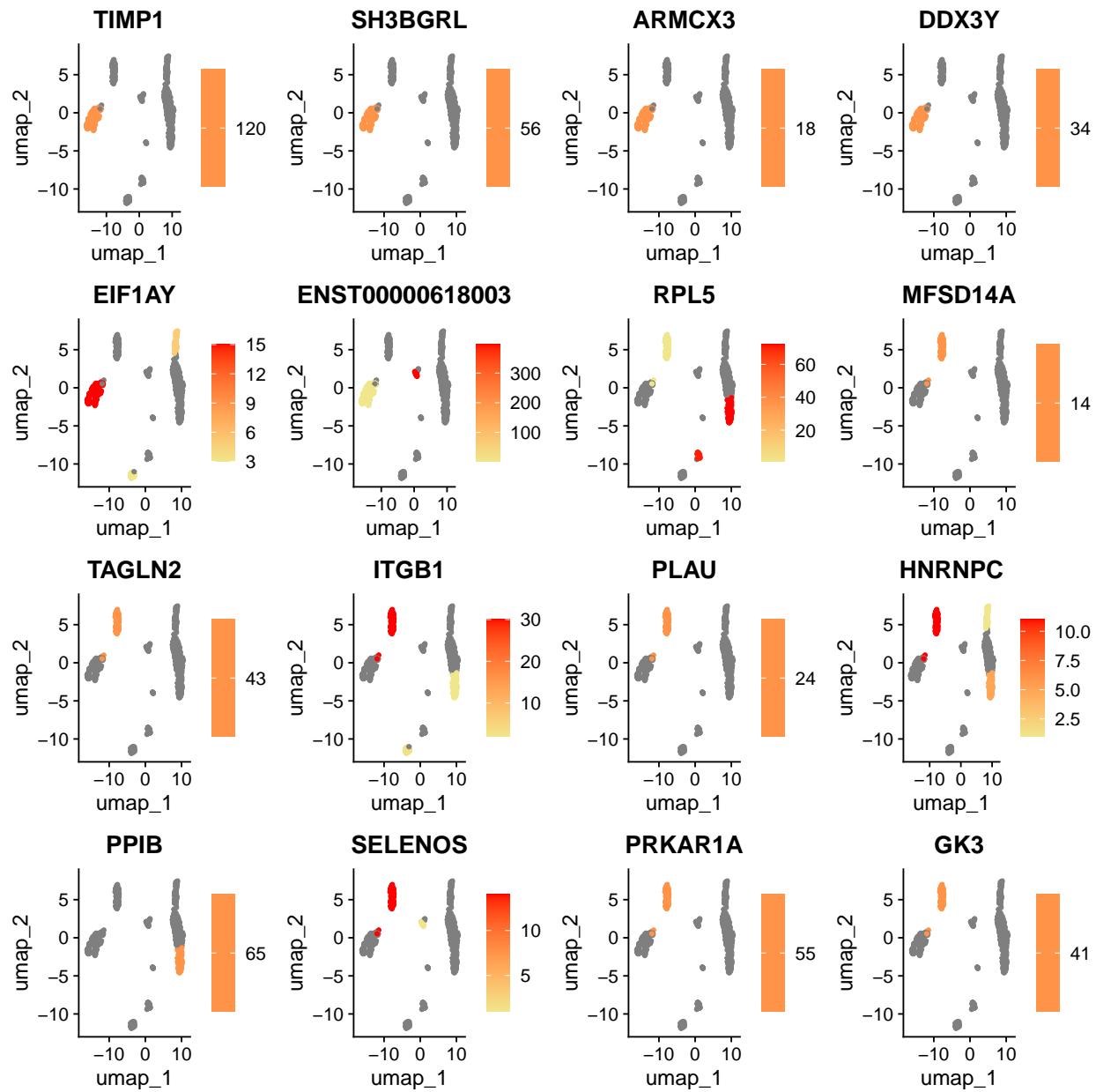
```
##  
## $`35`
```



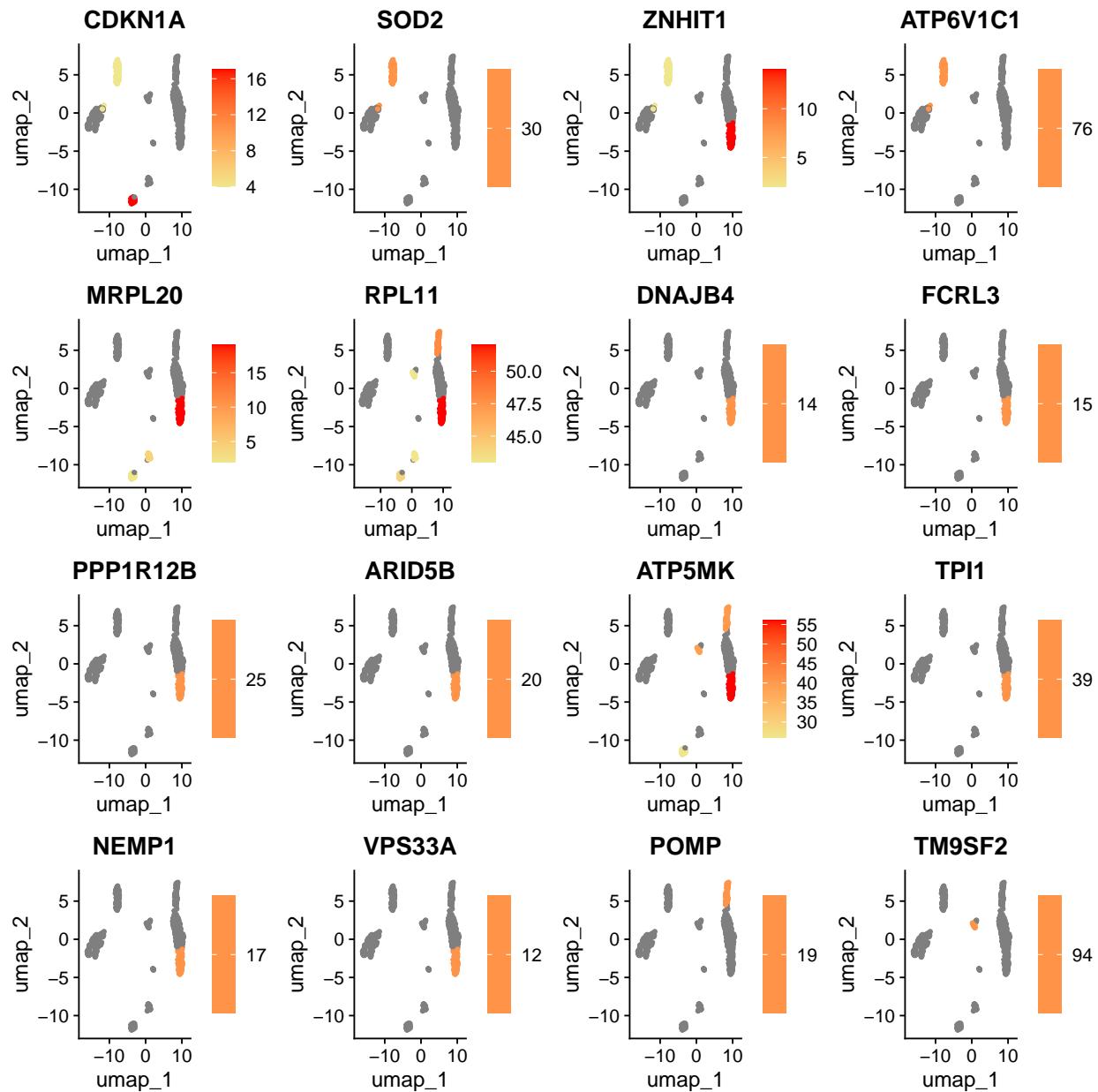
```
##  
## $`36`
```



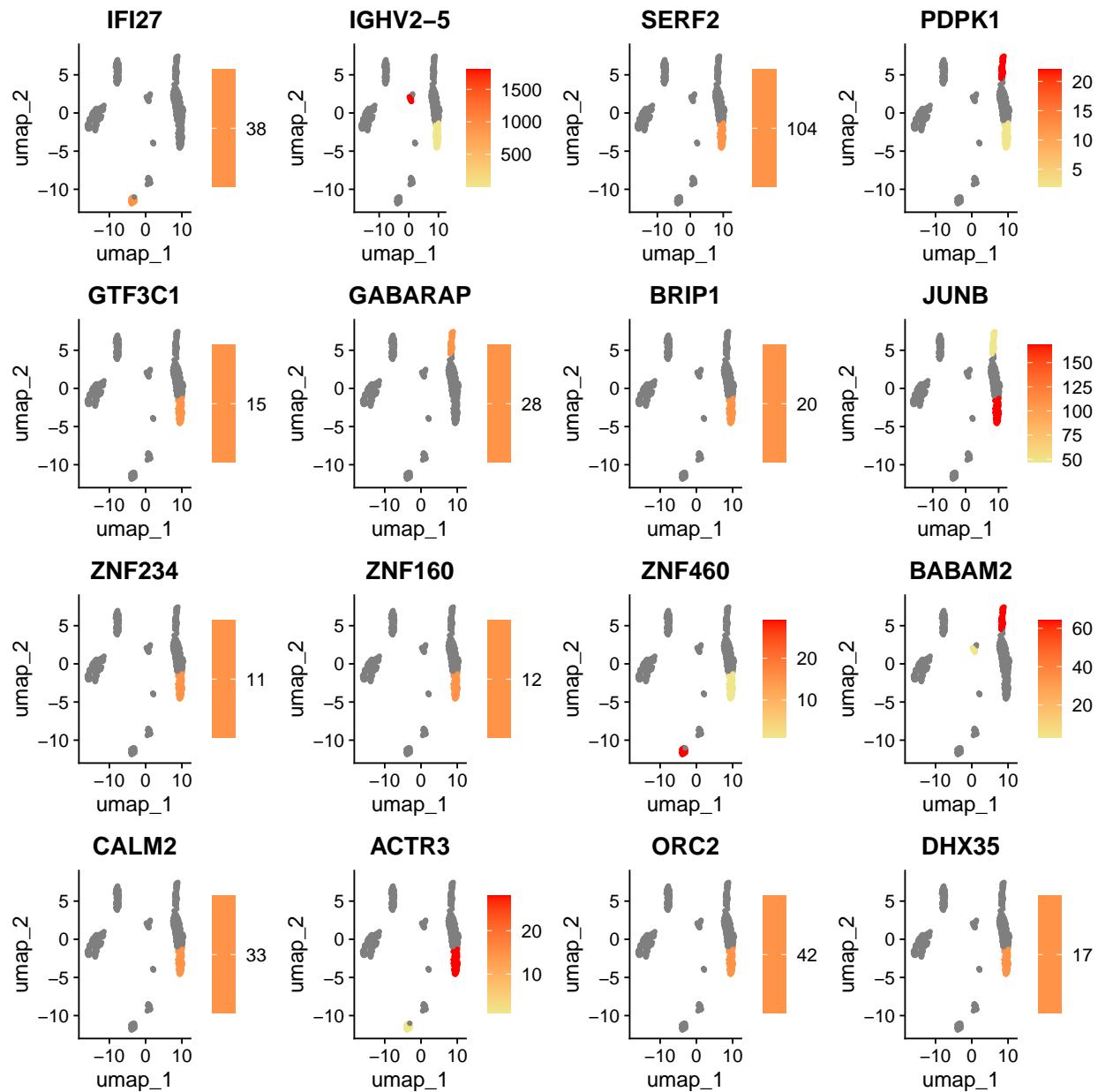
```
##  
## $`37`
```



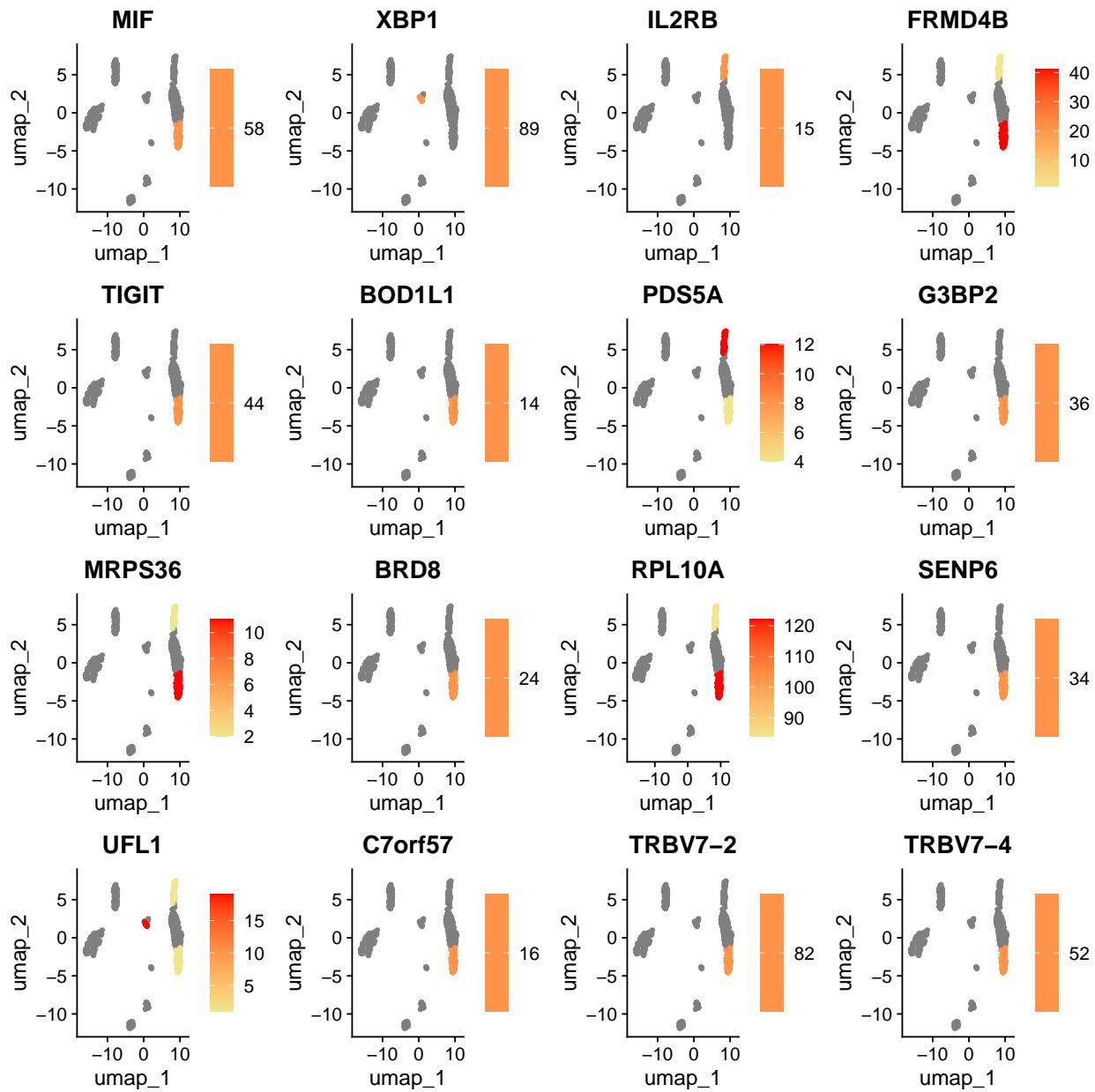
```
##  
## $`38`
```



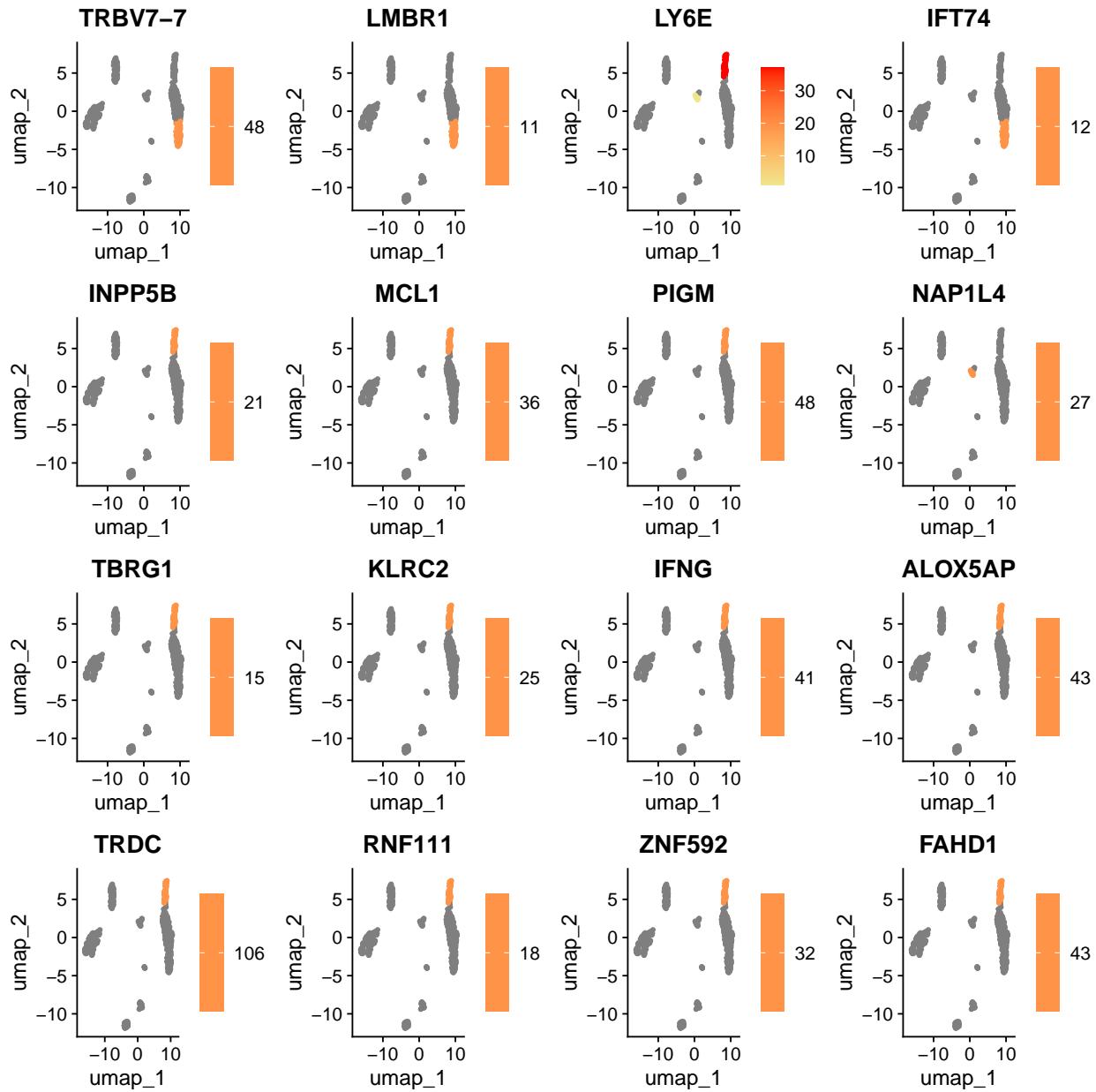
```
##  
## $`39`
```



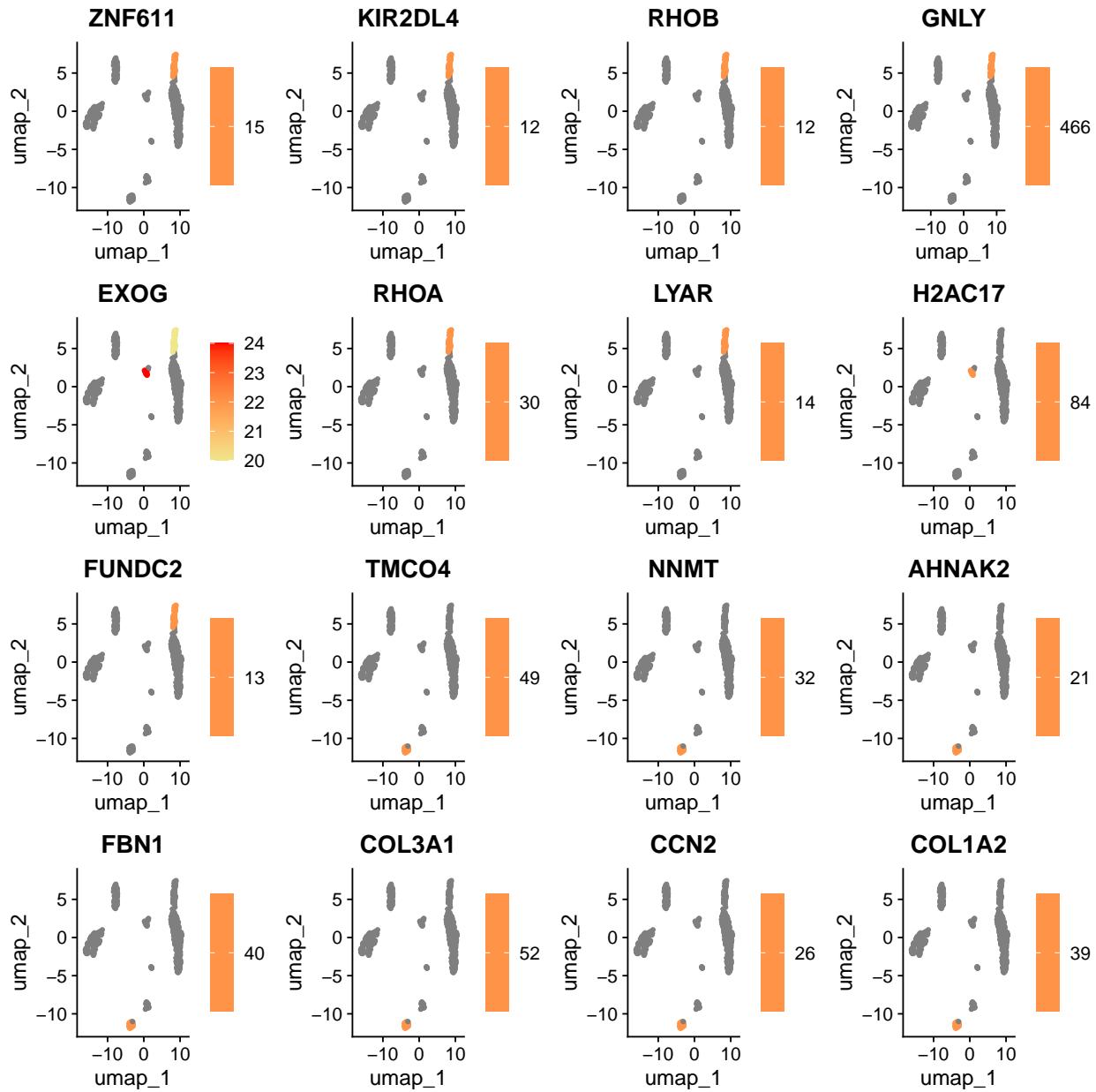
```
##  
## $`40`
```



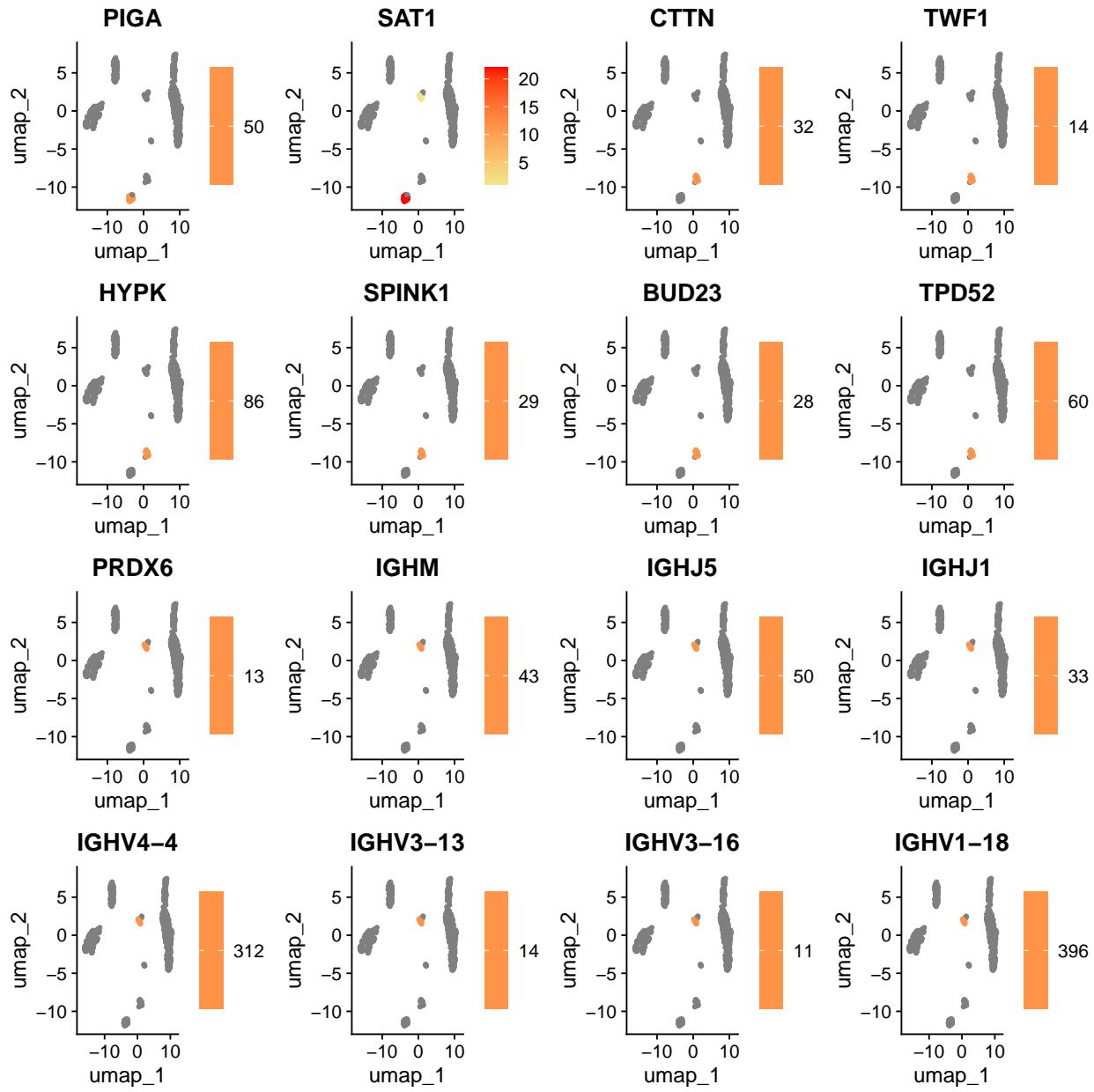
```
##  
## $`41`
```



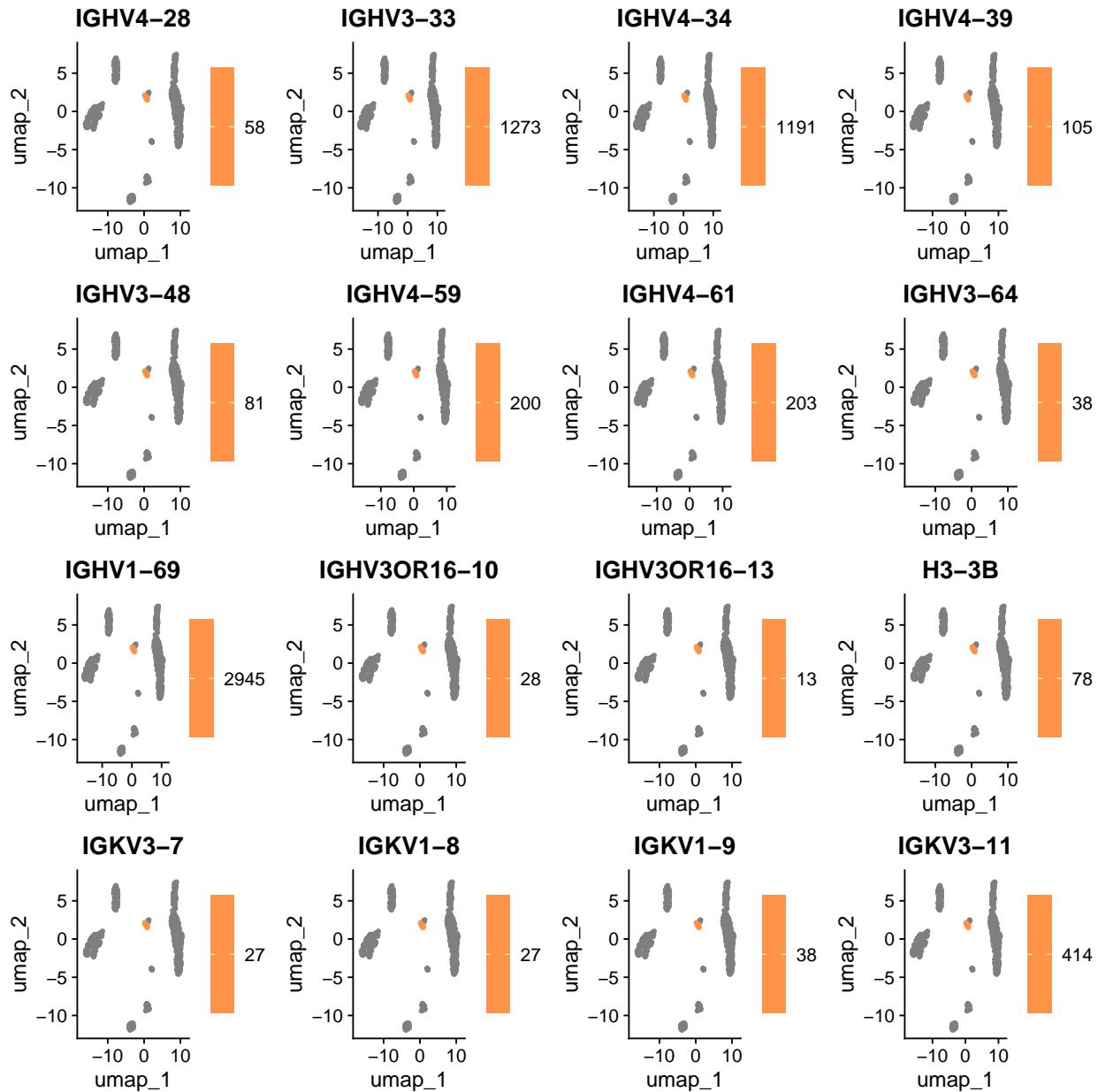
```
##  
## $`42`
```



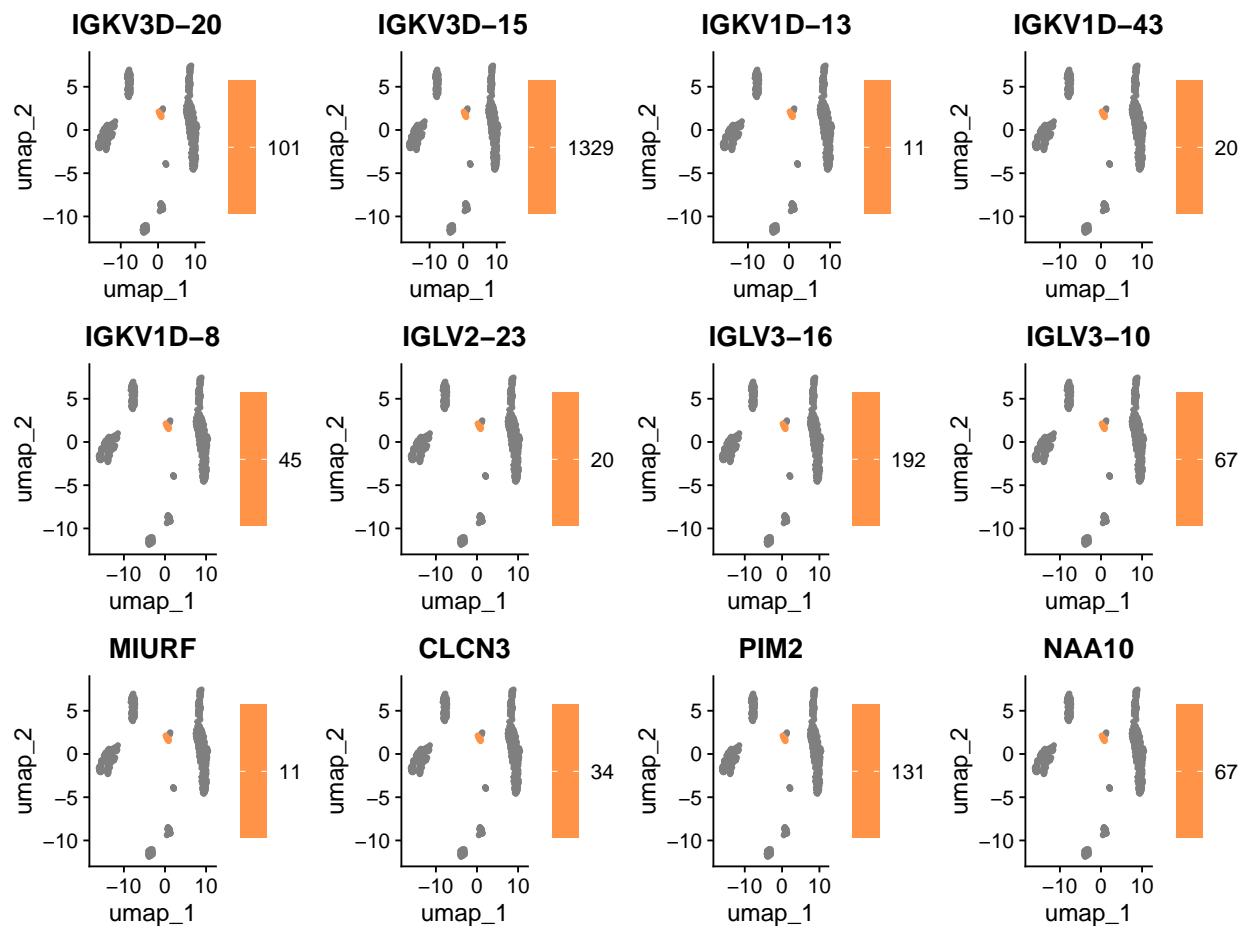
```
##  
## $`43`
```



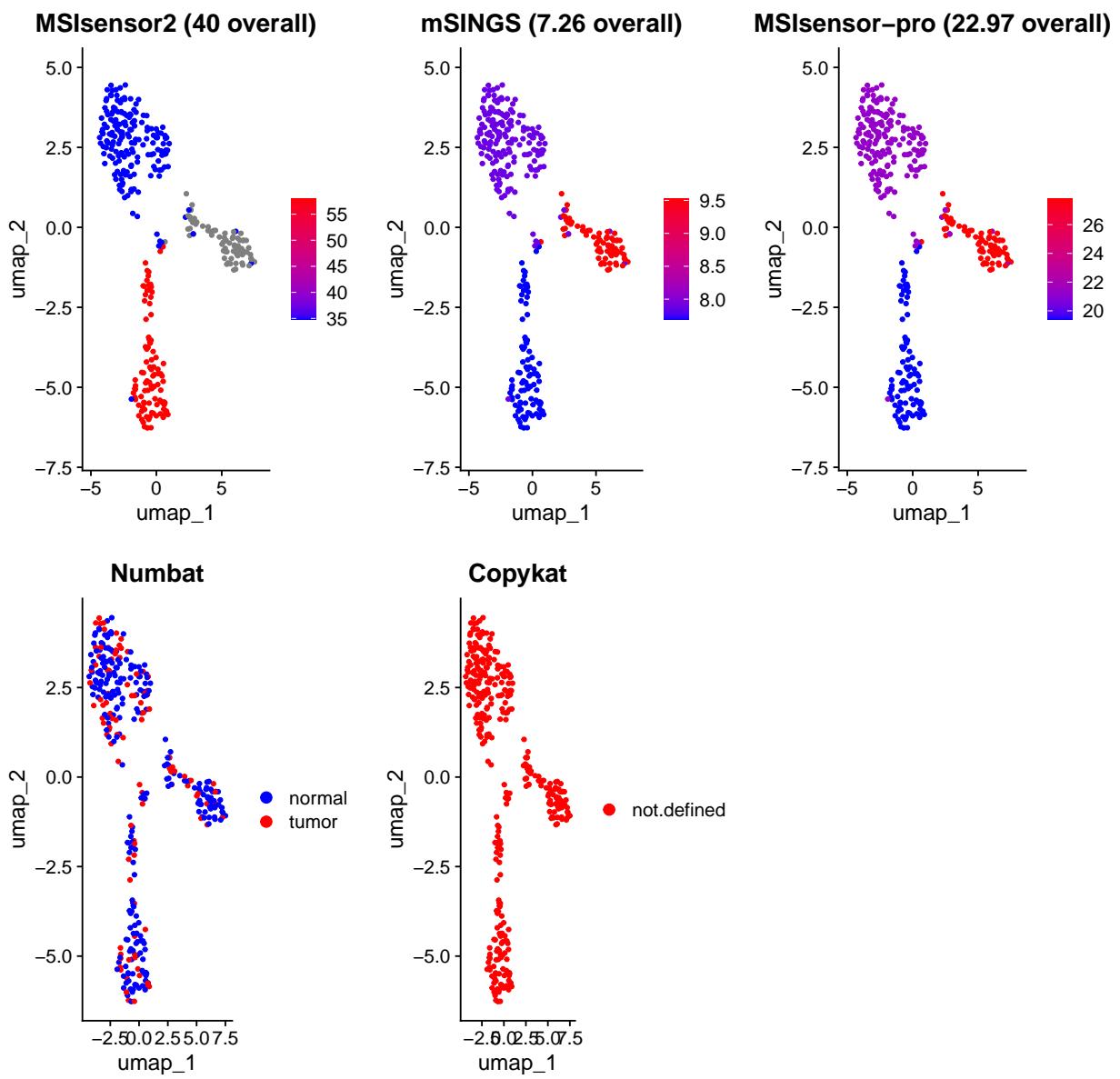
```
##  
## $`44`
```



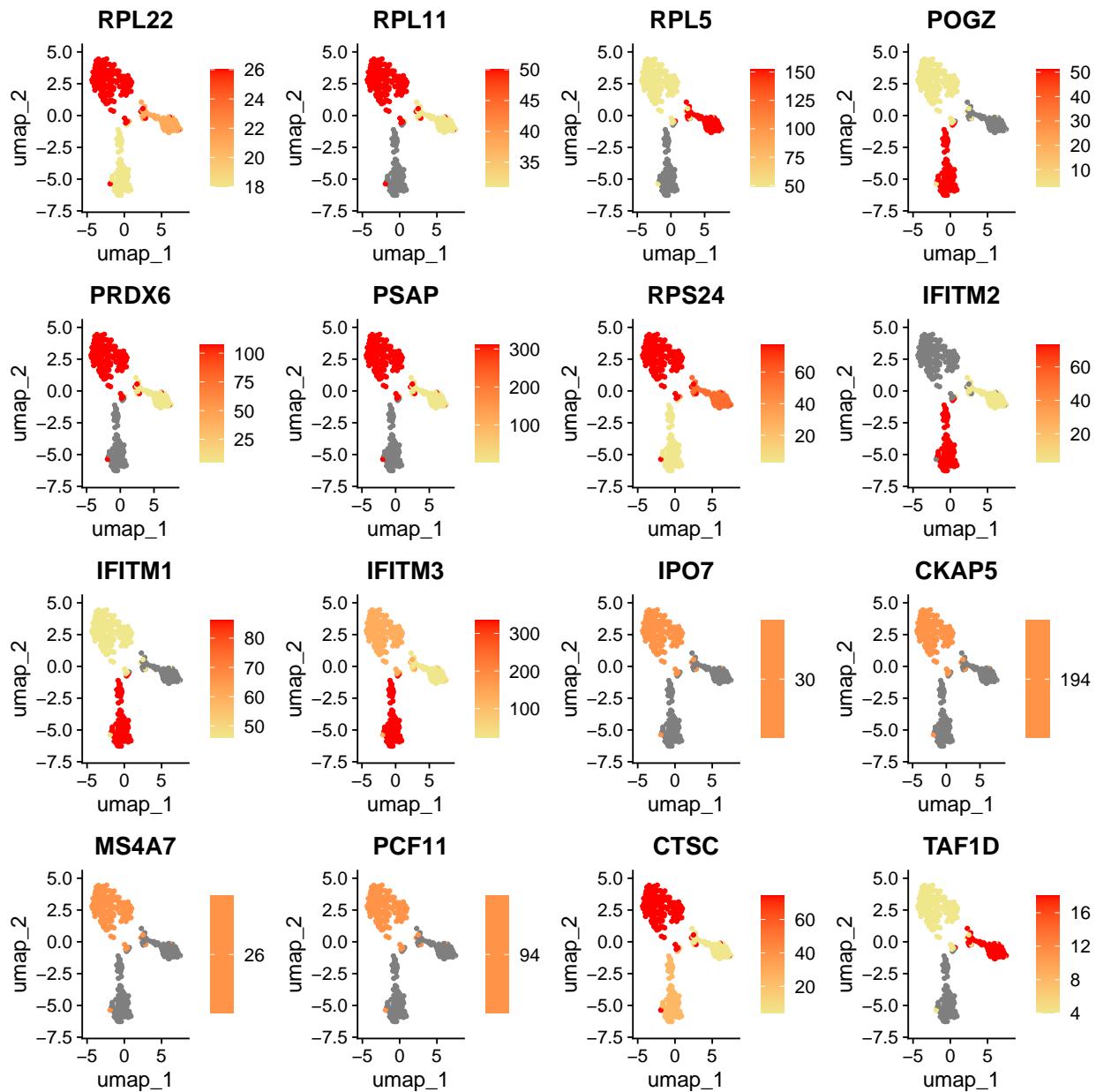
```
##  
## $`45`  
  
##  
## attr(,"class")  
## [1] "list"      "ggarrange"
```



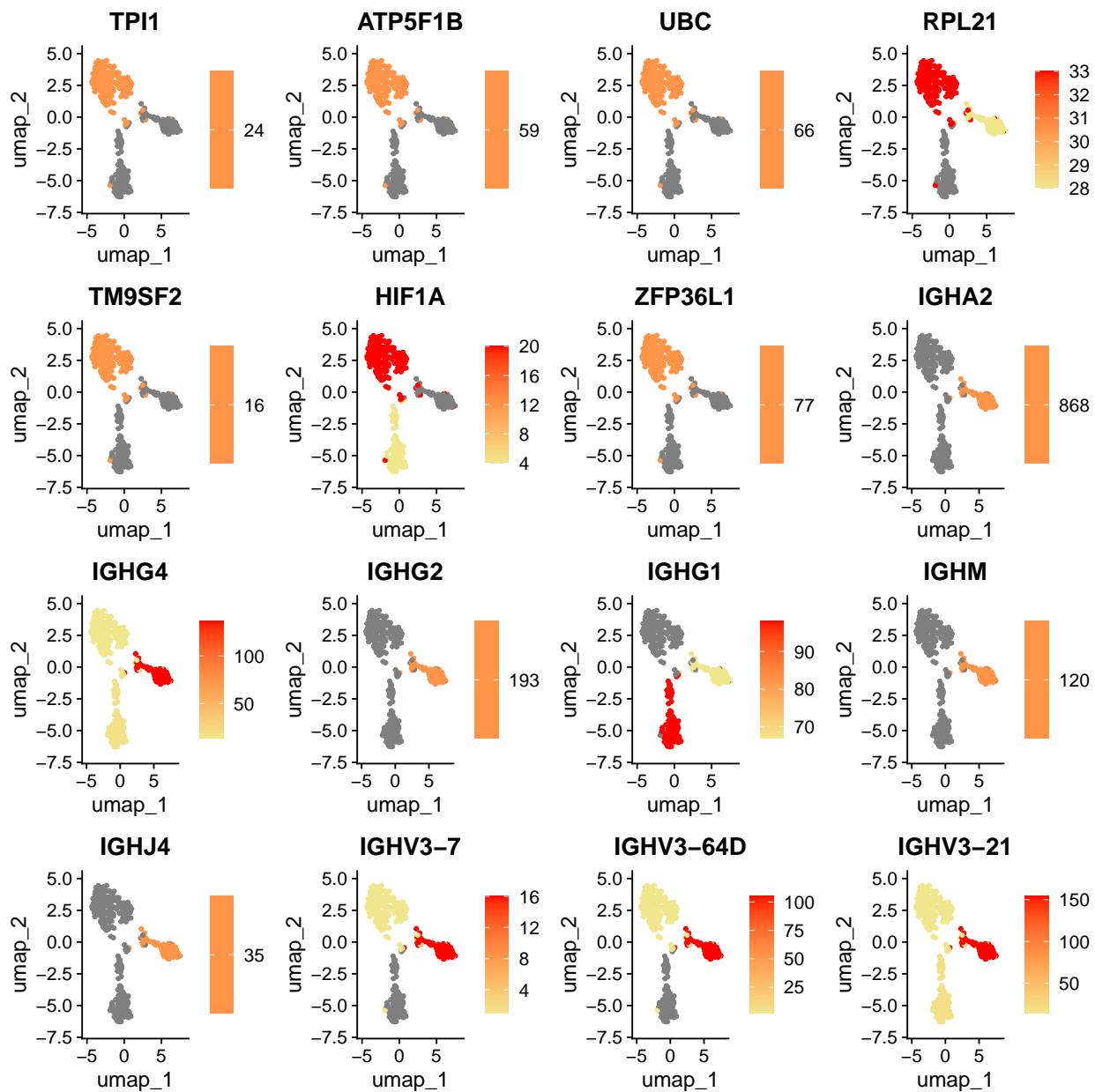
### XHC167-SI-GA-B9; Core3; MSS; IHC



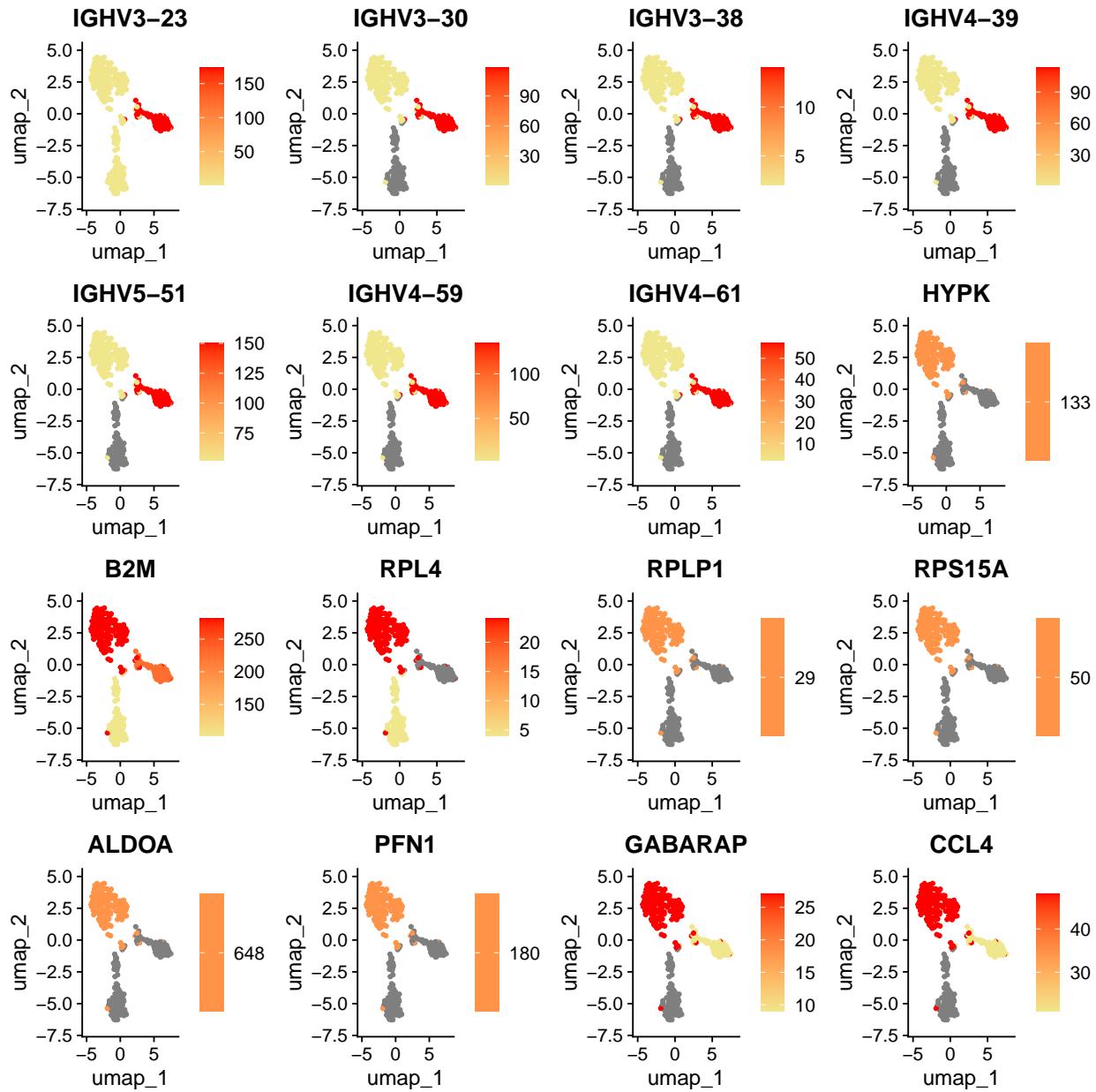
```
## $`1`
```



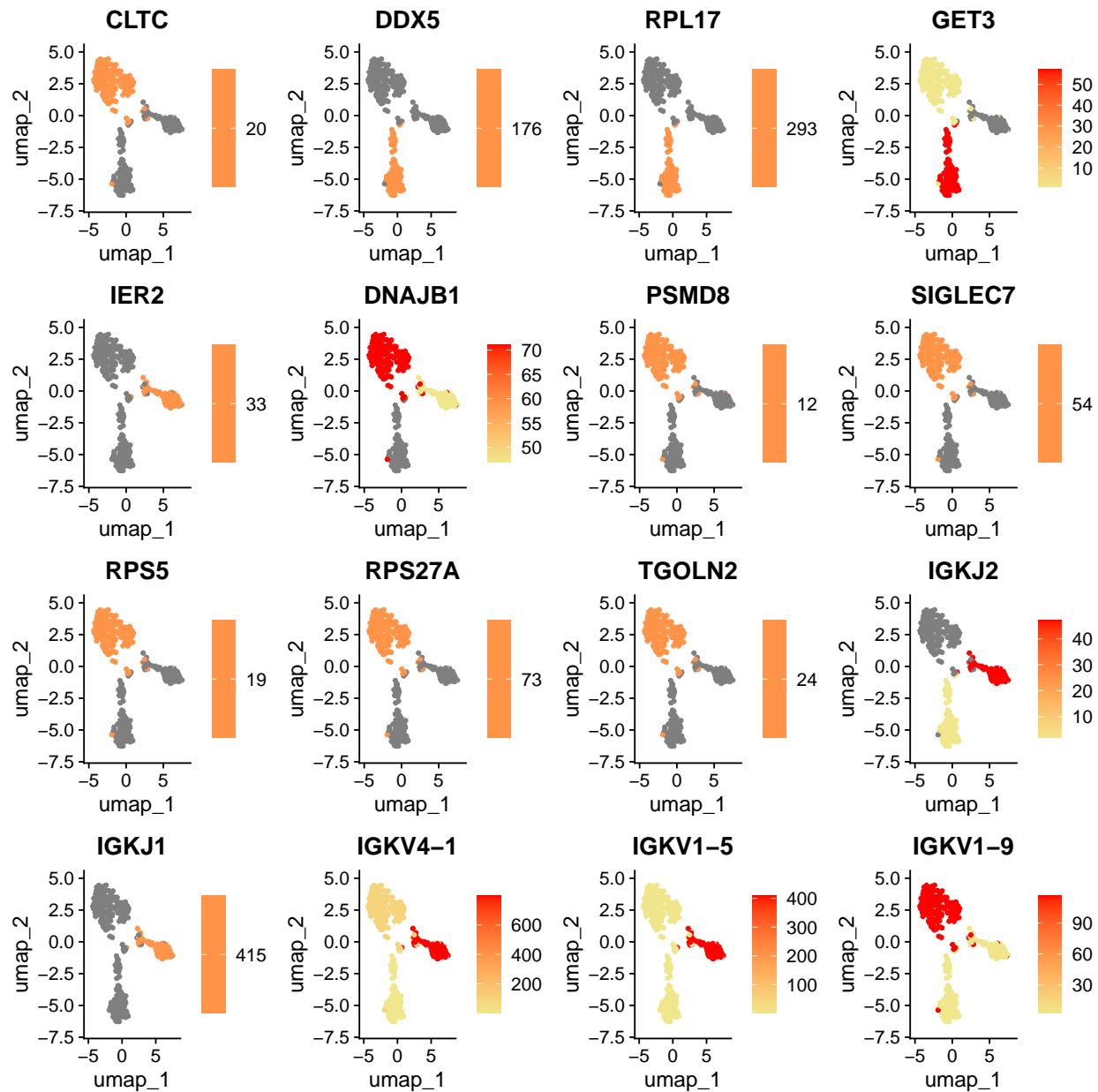
```
##  
## $^2`
```



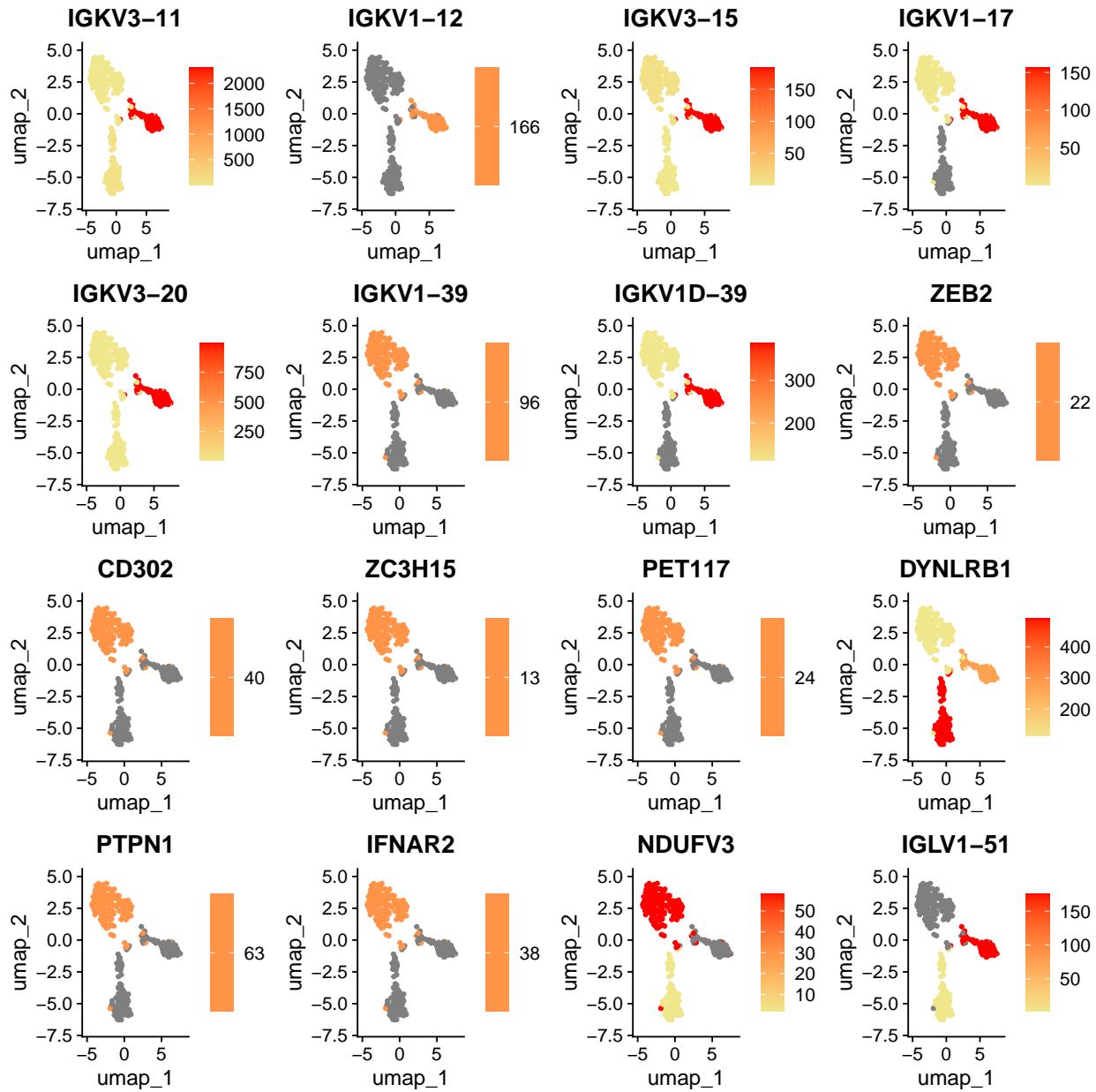
```
##  
## $`3`
```



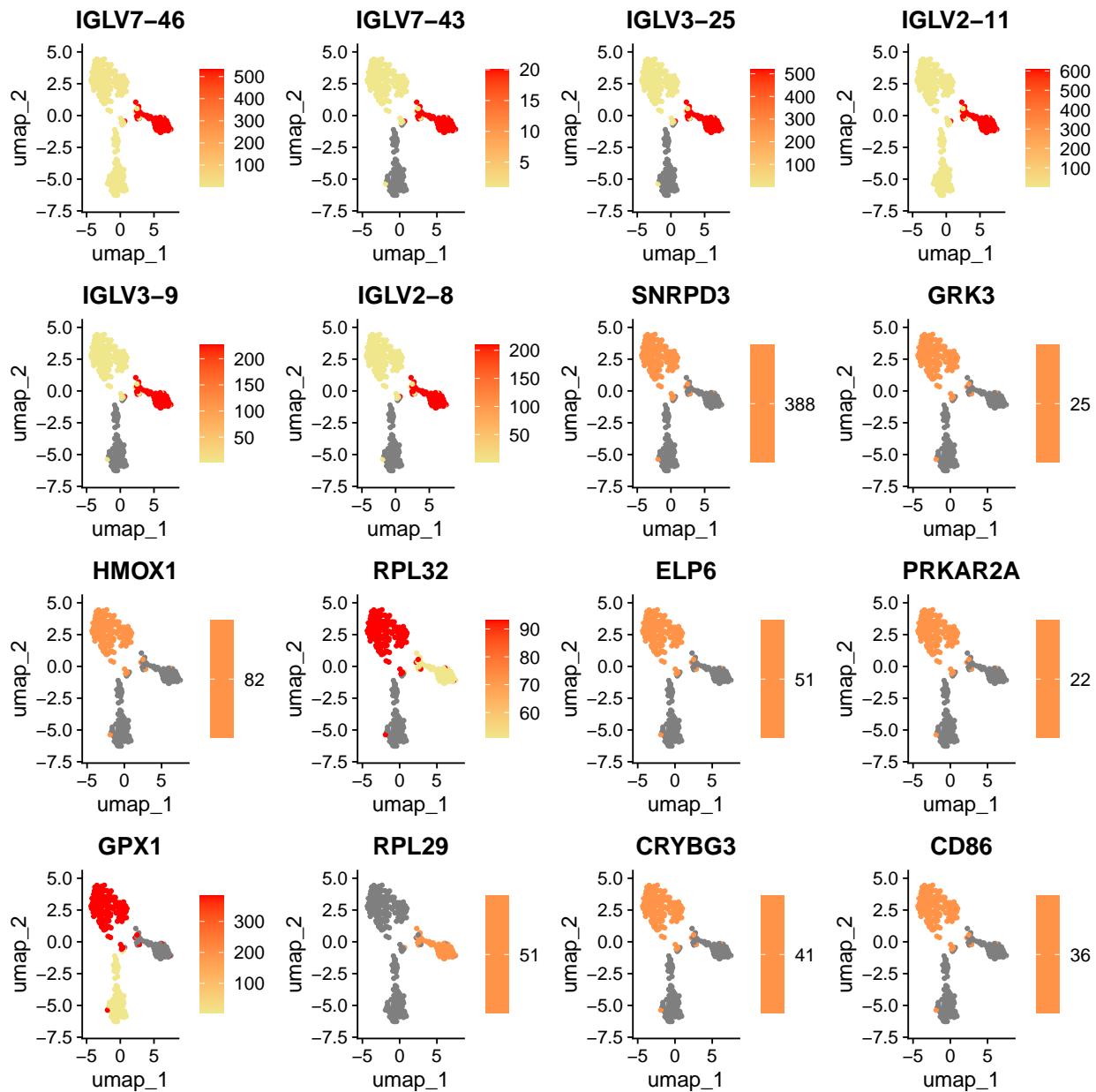
```
##  
## $`4`
```



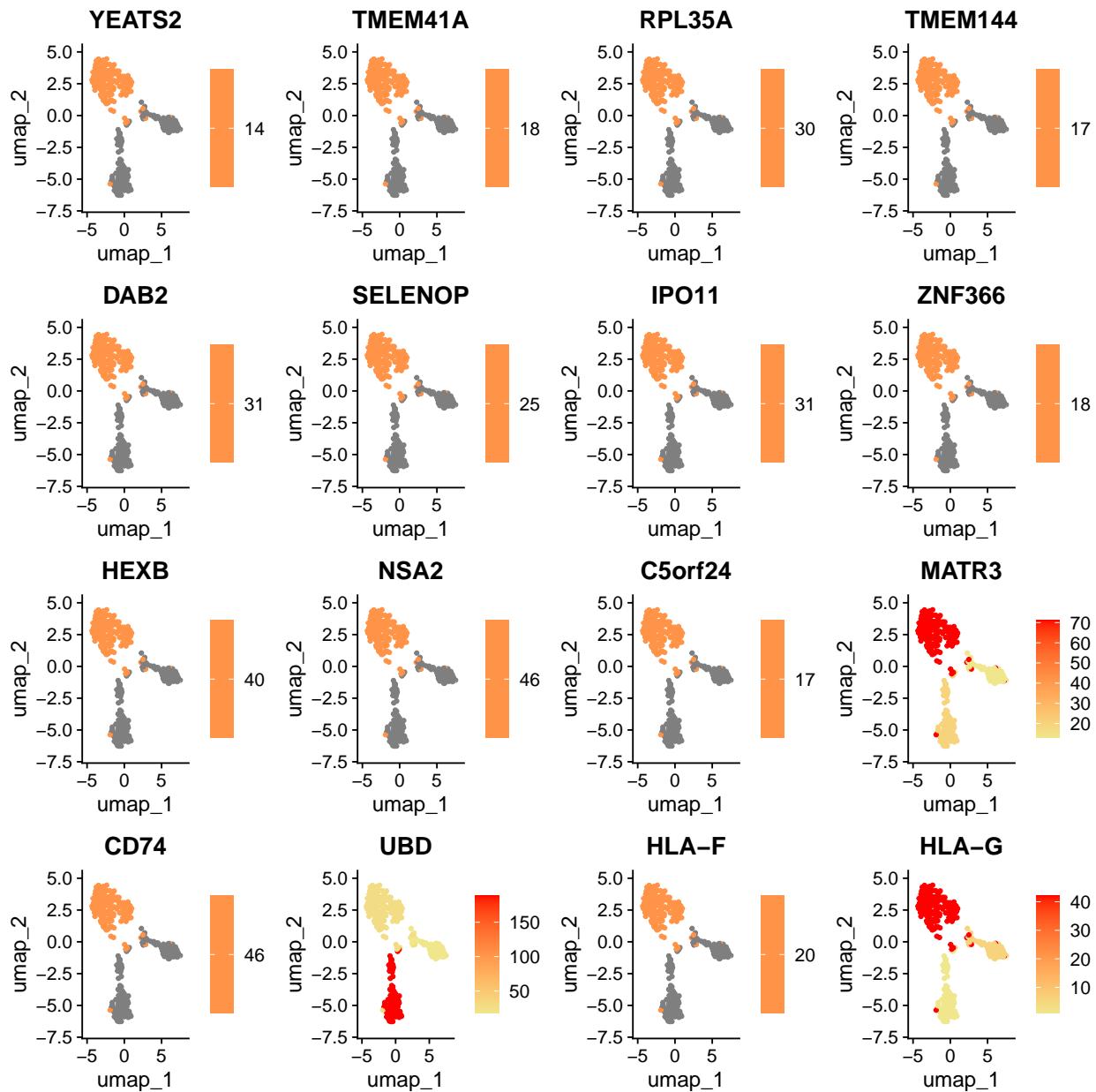
```
##  
## $`5`
```



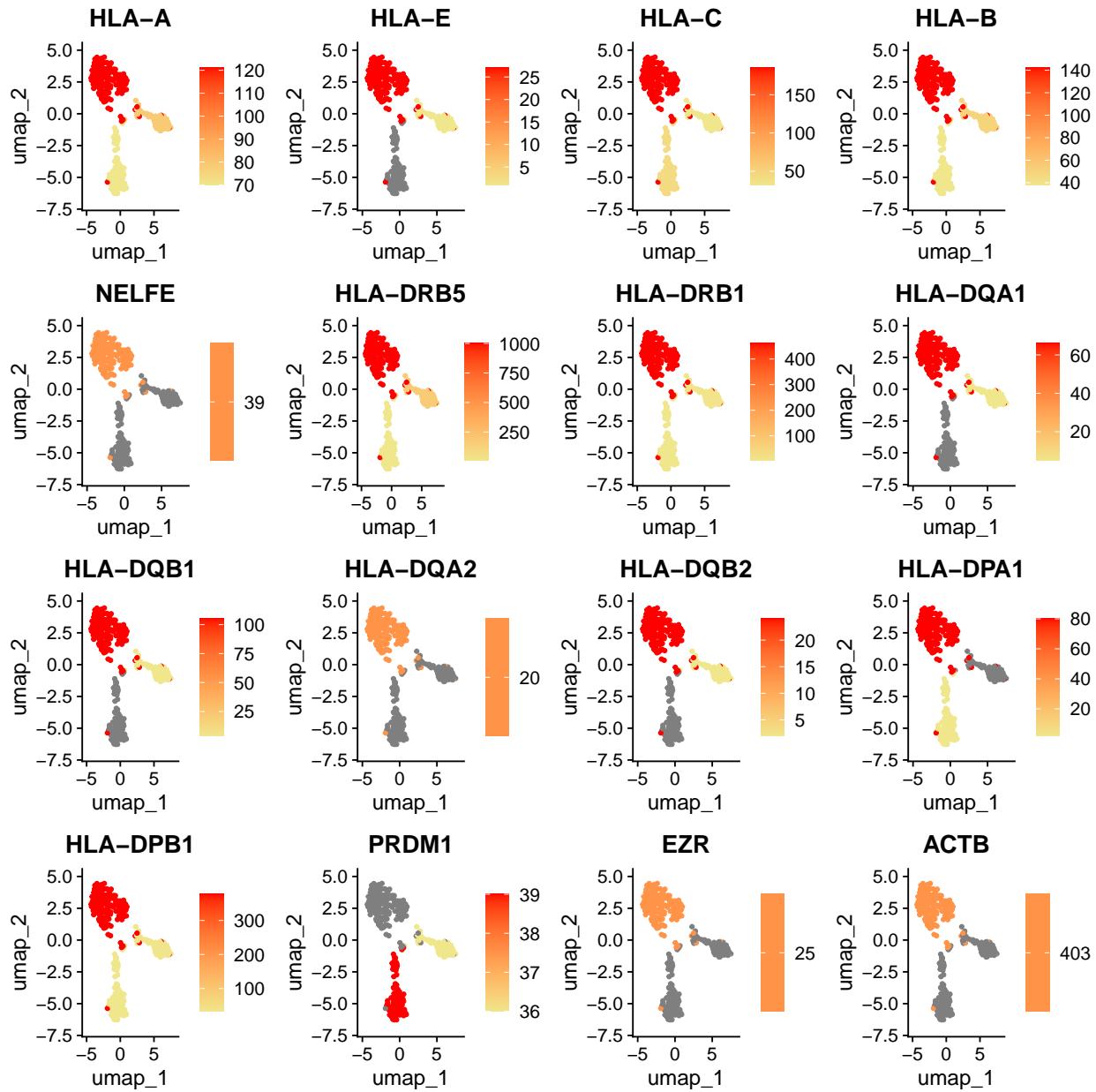
```
##  
## $`6`
```



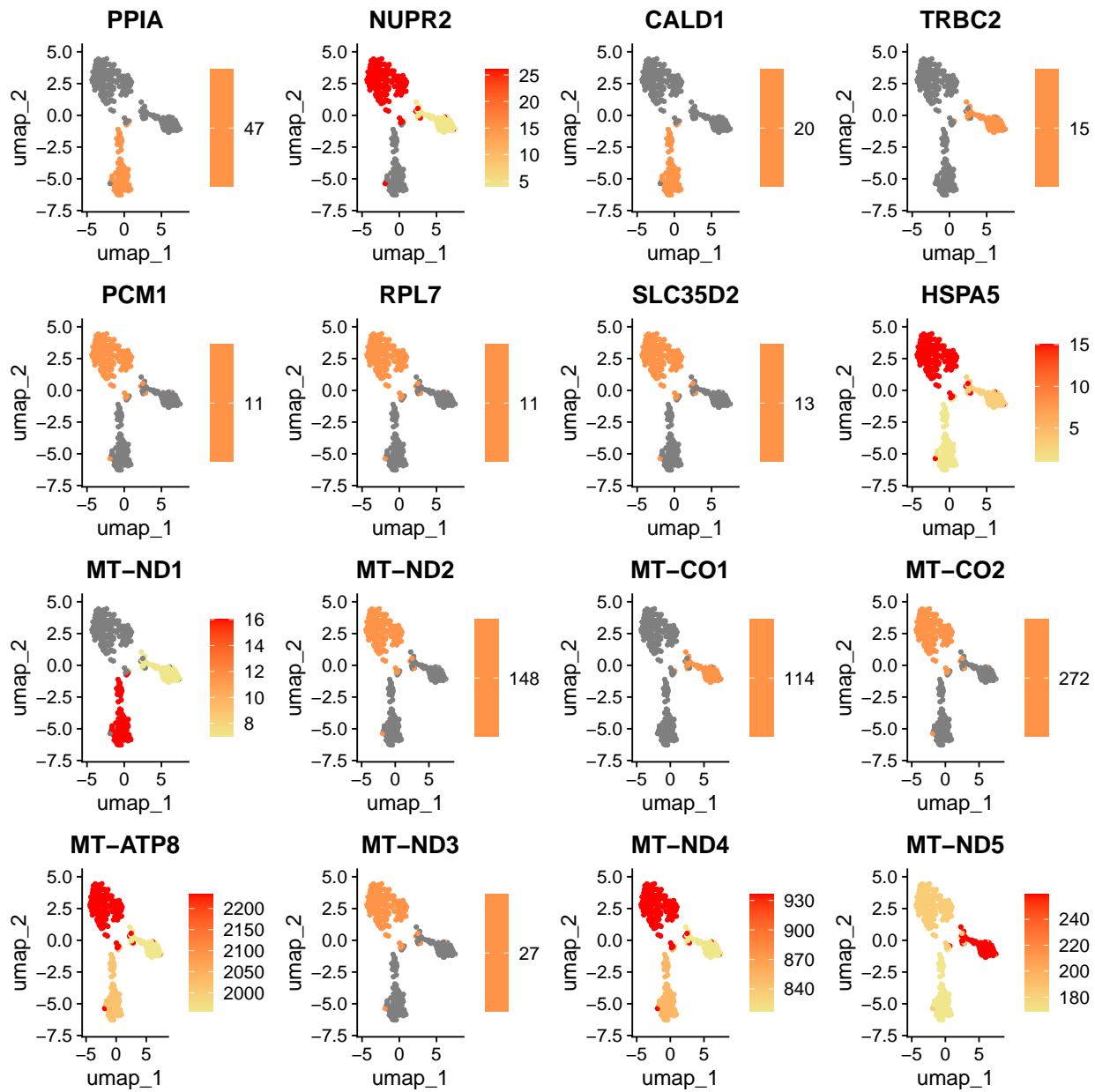
```
##  
## $`7`
```



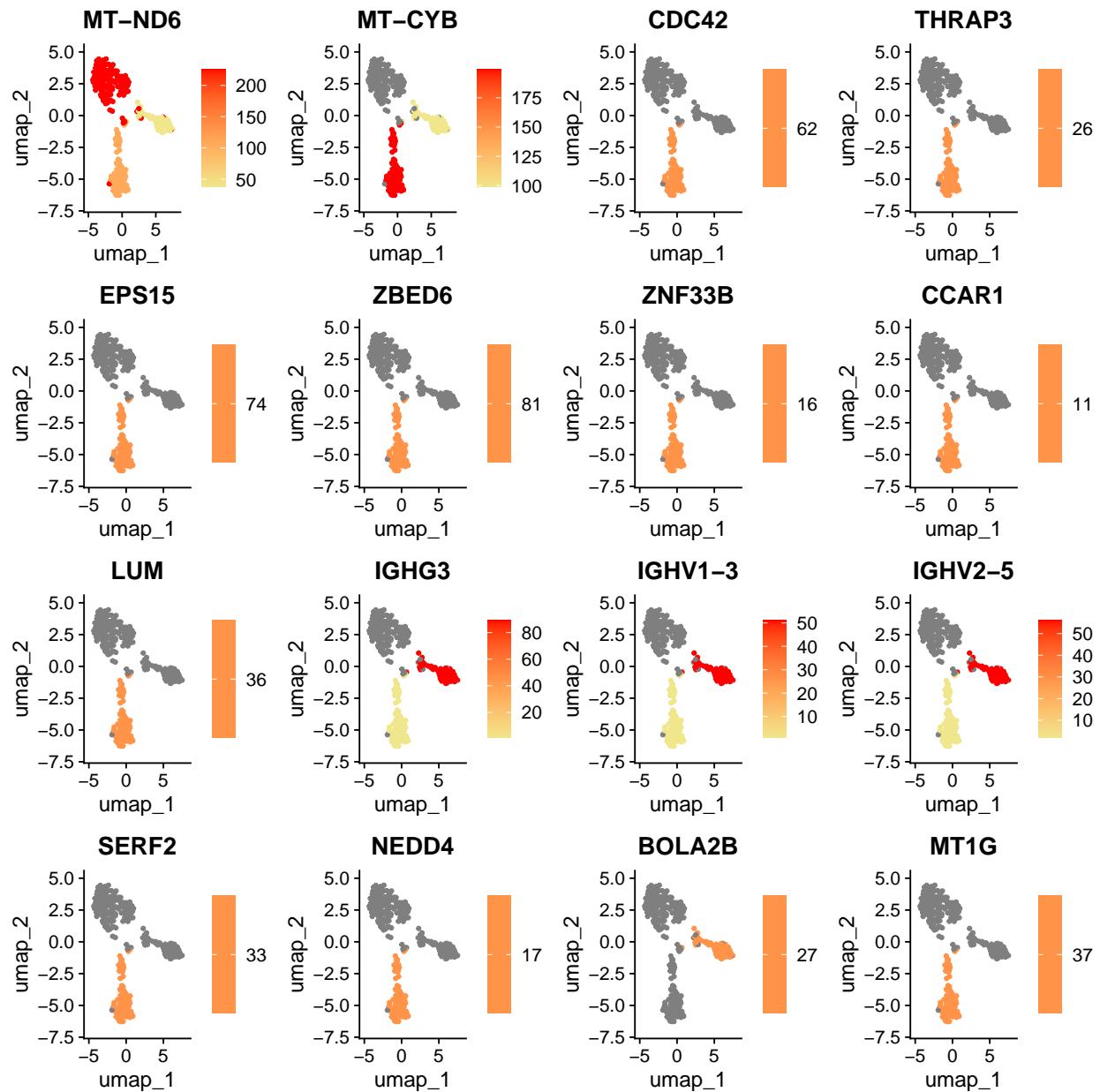
```
##  
## $`8`
```

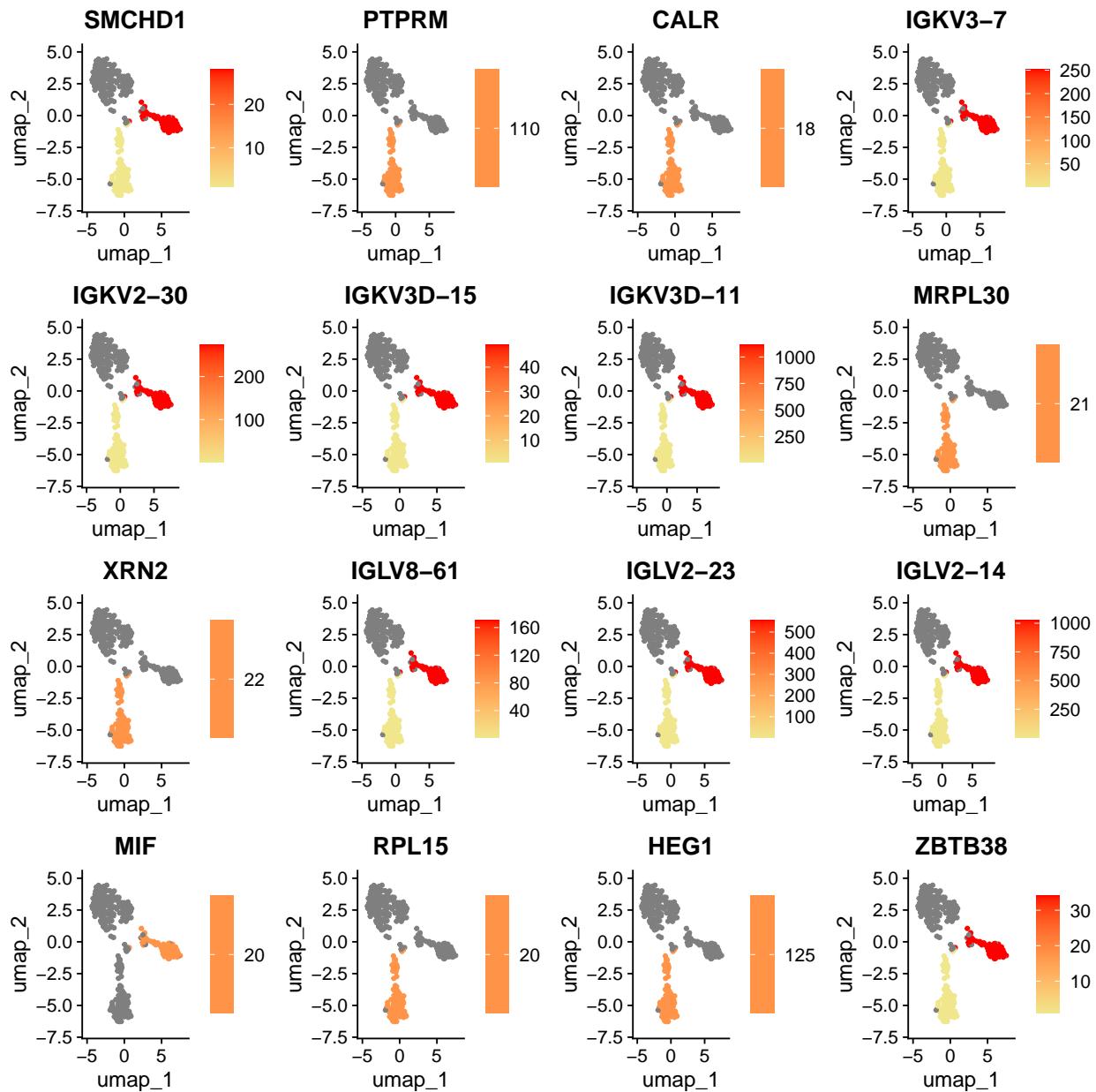


```
##  
## $`9`
```

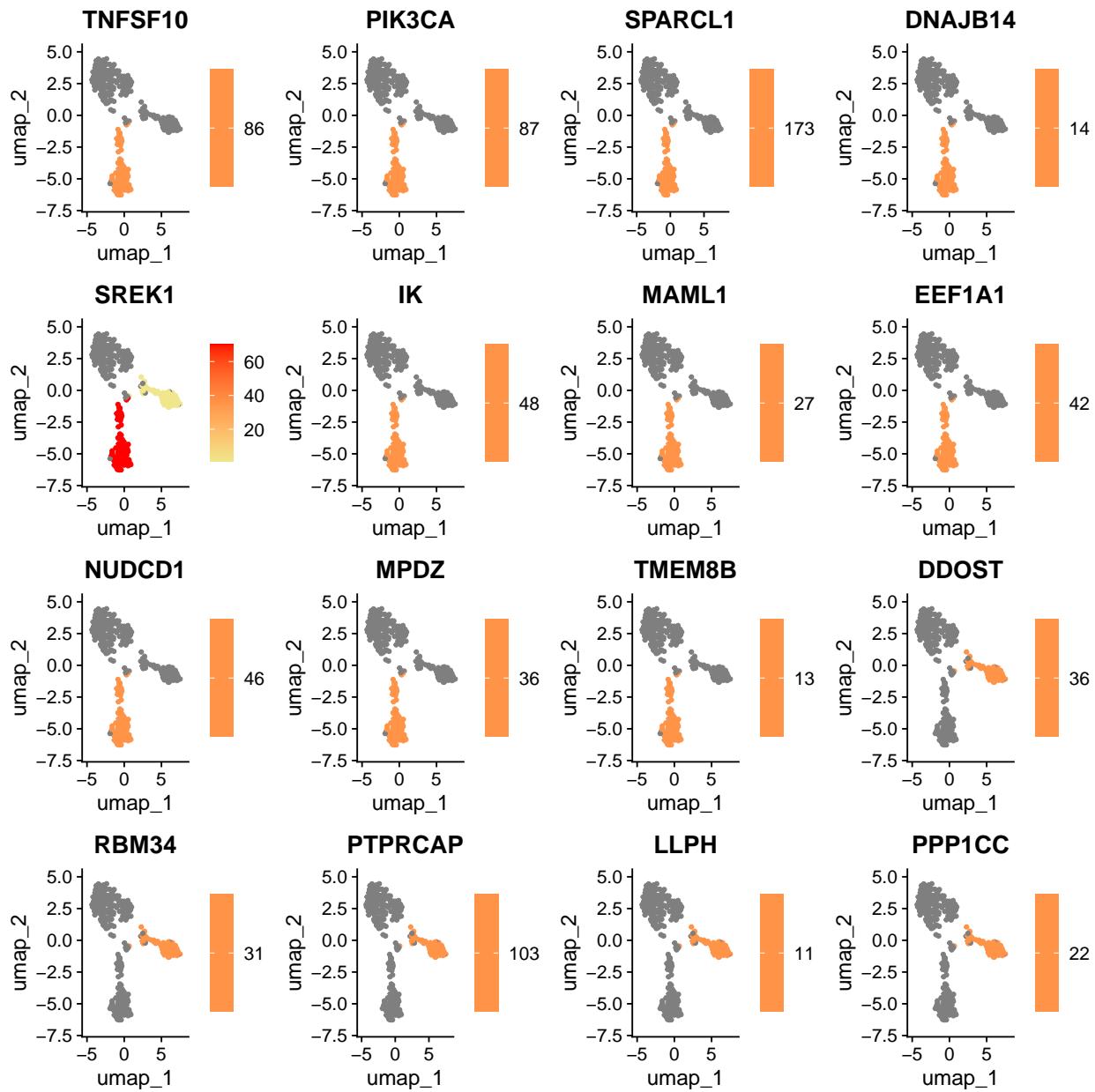


```
##  
## $`10`
```

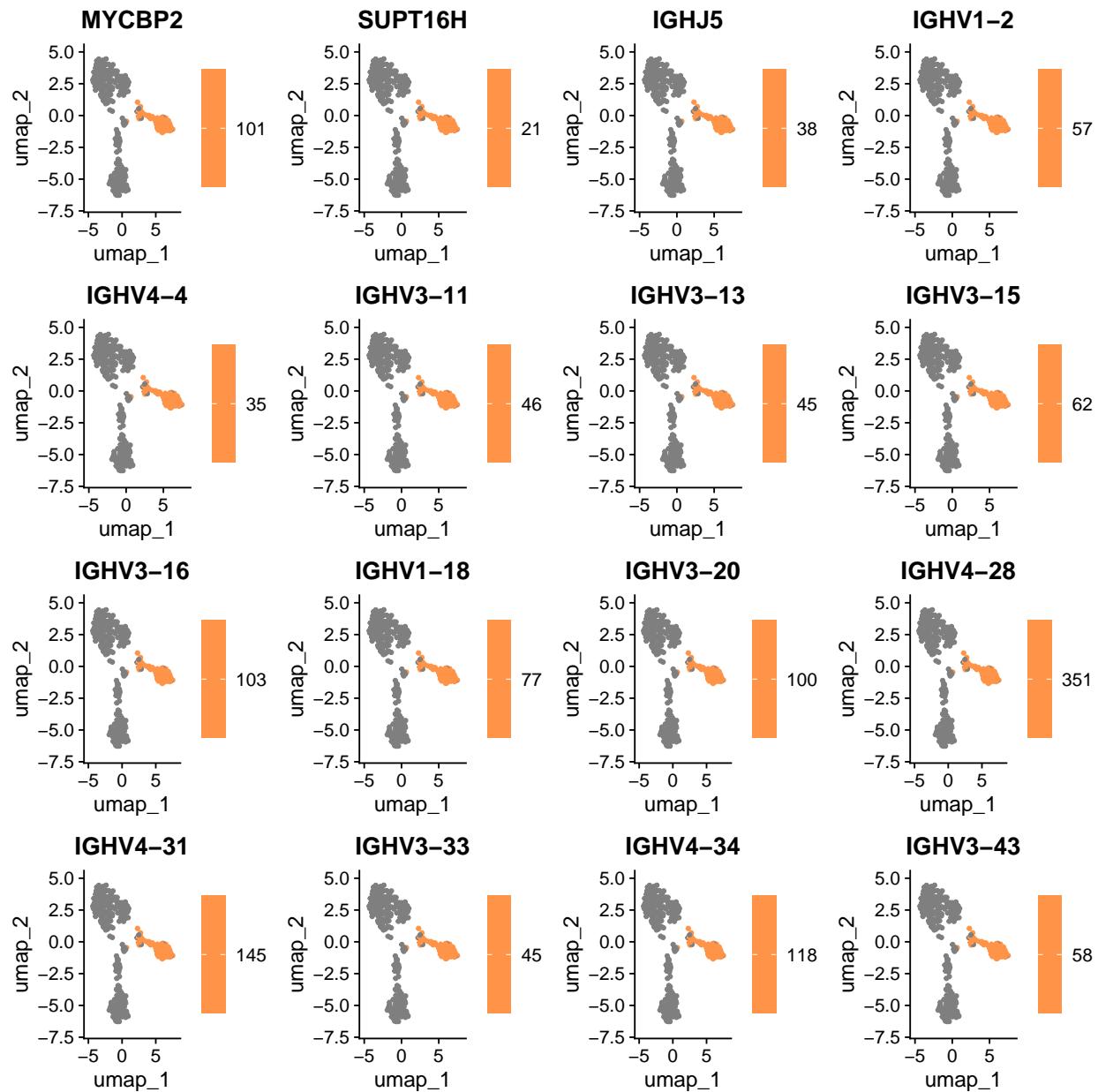




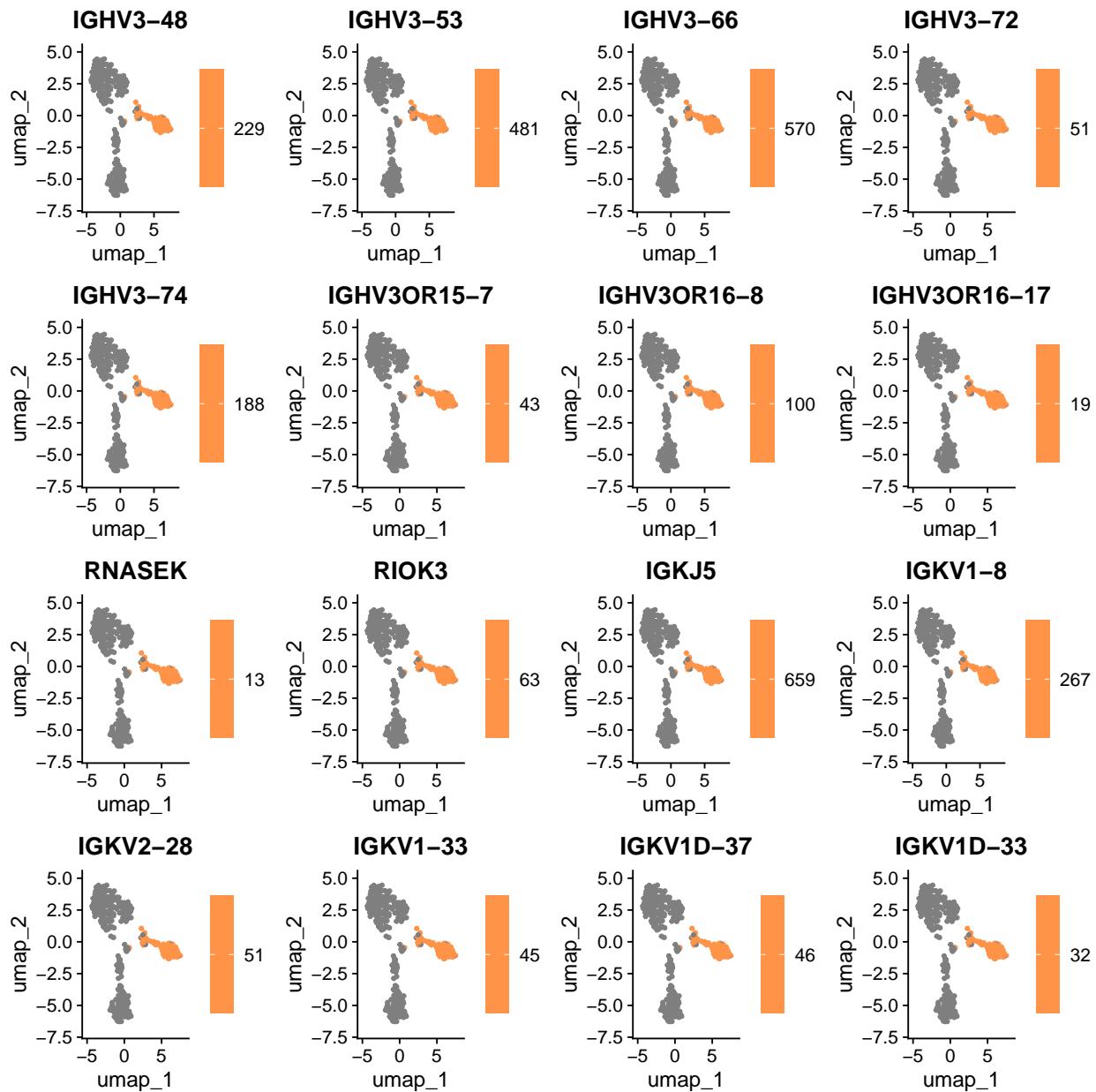
```
##  
## $`12`
```



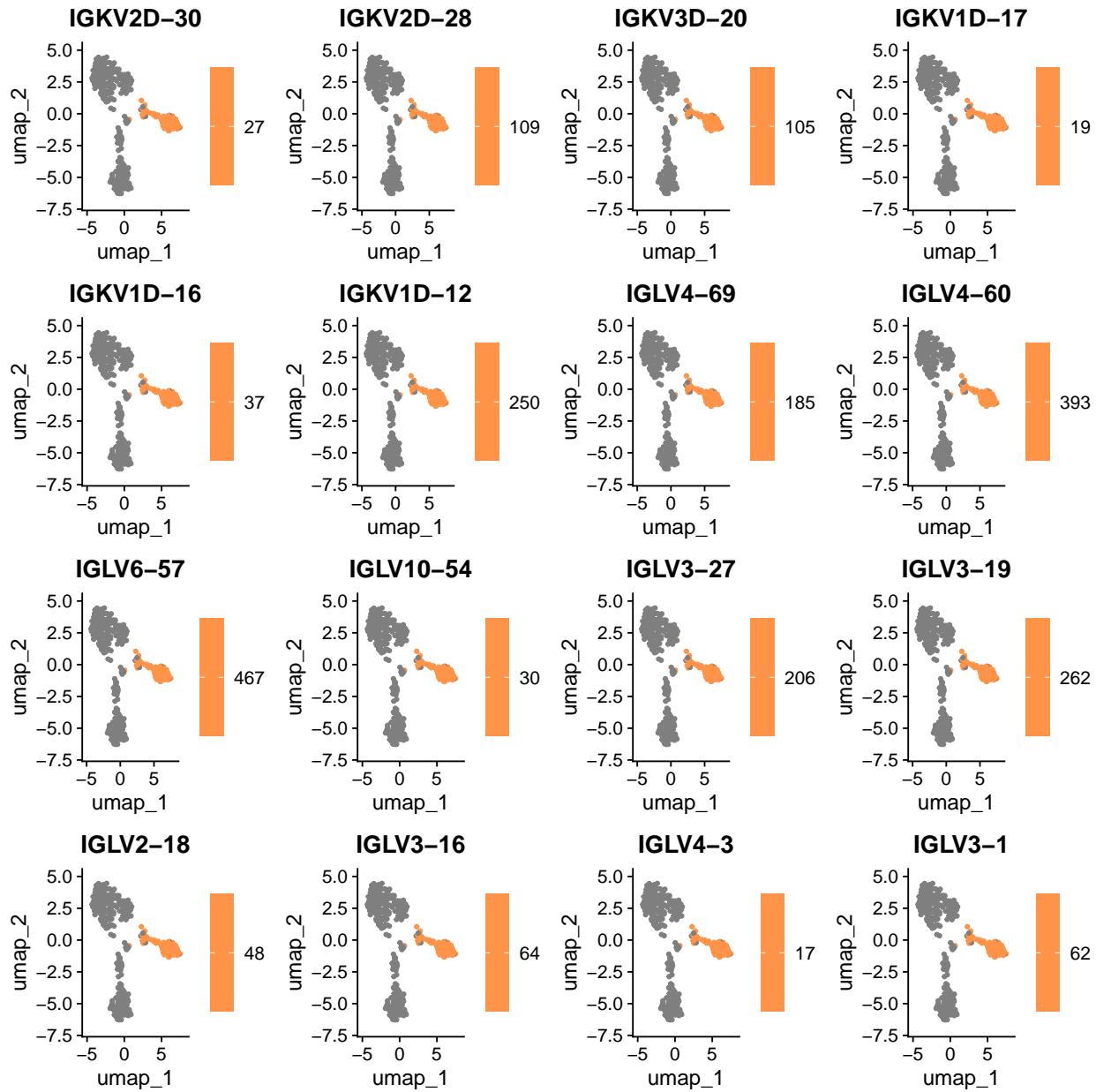
```
##  
## $`13`
```



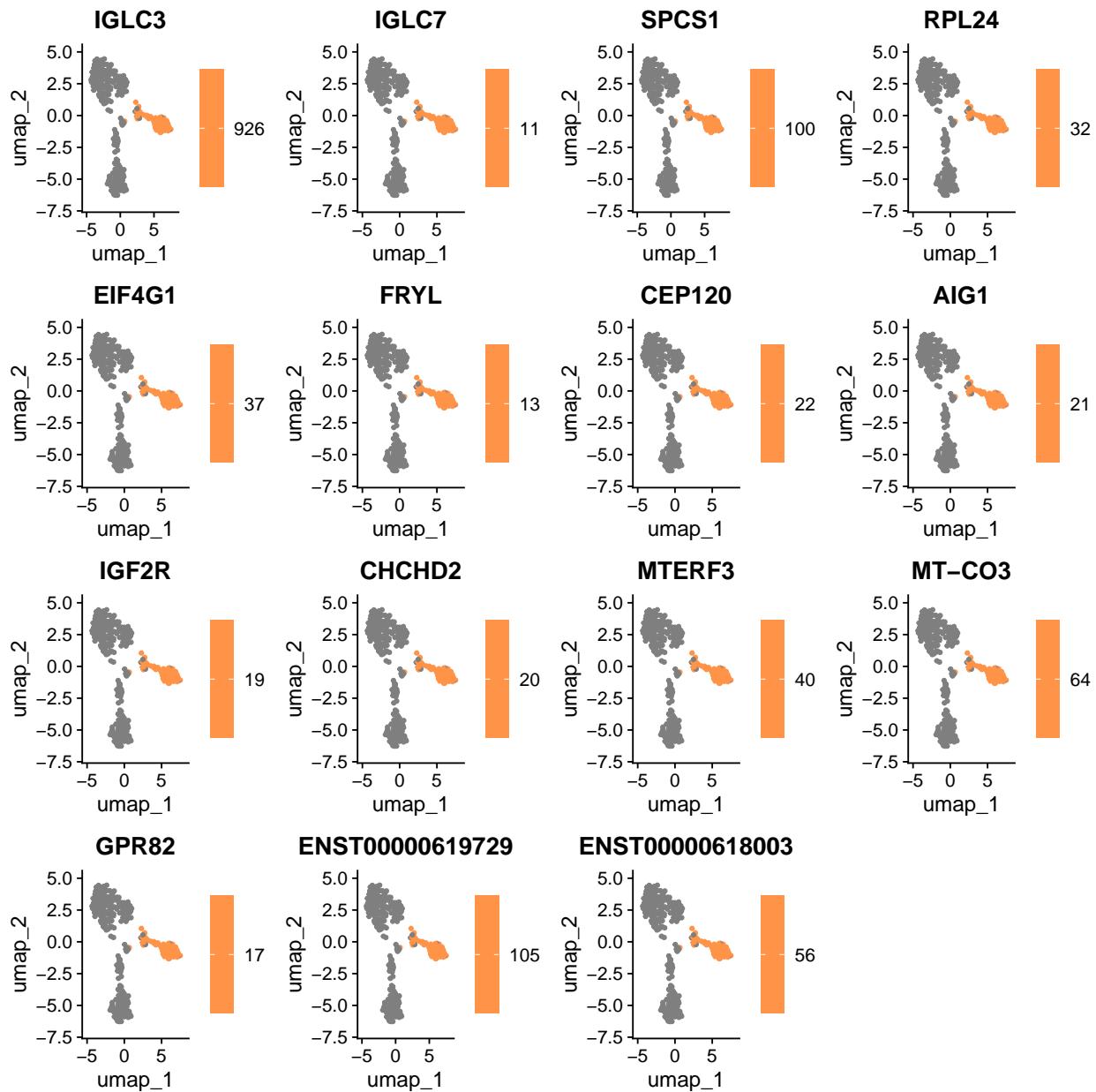
```
##  
## $`14`
```



```
##  
## $`15`
```



```
##  
## $`16`
```



```
##  
## attr(),"class")  
## [1] "list"      "ggarrange"
```