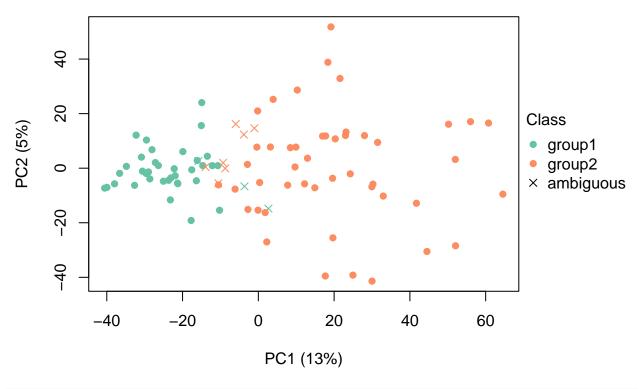
Dimension Reduction

```
library(cola)
res_list <- readRDS("Cola_res_list.rds")</pre>
res <- res_list["SD:hclust"]</pre>
select_partition_number(res)
                                                   0.65
                                                                                           mean_silhouette
      0.8
P(X <= x)
                                              1-PAC
                                                   0.55
                                                                                                 0.55
      0.0
                0.2 0.4 0.6
                                 0.8
                                                                 3
                                                                               5
                                                                                       6
                                                         2
                                                                                                       2
                                                                                                               3
                                                                                                                      4
                                                                                                                             5
                                                                                                                                     6
                 consensus value (x)
                                                                        k
                                                                                                                      k
                                                   0.5
                                                                                                 6.0
                                              area_increased
concordance
                                                   0.3
     0.85
                                                                                            Rand
                                                                                                 0.7
                                                   0.1
     0.75
                                                                                                 0.5
           2
                   3
                          4
                                  5
                                         6
                                                         2
                                                                 3
                                                                               5
                                                                                       6
                                                                                                               3
                                                                                                                      4
                                                                                                                             5
                                                                                                                                     6
                          k
                                                                        k
                                                                                                                      k
     0.65 0.80
                                                      best k
Jaccard
     0.50
                                         6
                   3
           2
                          4
                                  5
                          k
# PCA
```

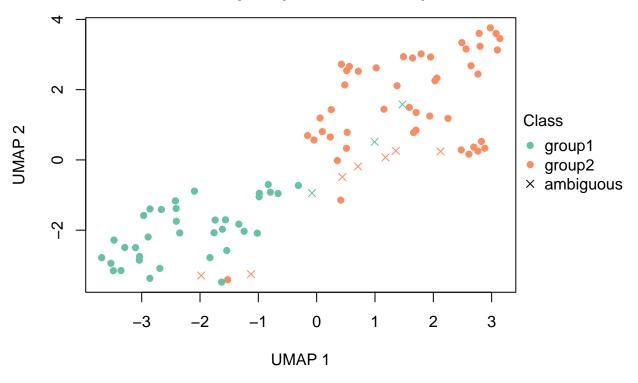
dimension_reduction(res, k = 2, method = "PCA")

PCA on 17730 rows with highest SD scores, rows are scaled 83/93 confident samples (silhouette > 0.5)



UMAP
dimension_reduction(res, k = 2, method = "UMAP")

UMAP on 17730 rows with highest SD scores, rows are scaled 83/93 confident samples (silhouette > 0.5), with 10 PCs



t-SNE
dimension_reduction(res, k = 2, method = "t-SNE")

t-SNE on 17730 rows with highest SD scores, rows are scaled 83/93 confident samples (silhouette > 0.5), with 10 PCs

