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0.5

topcor

0.0

−0.5

3200

3250

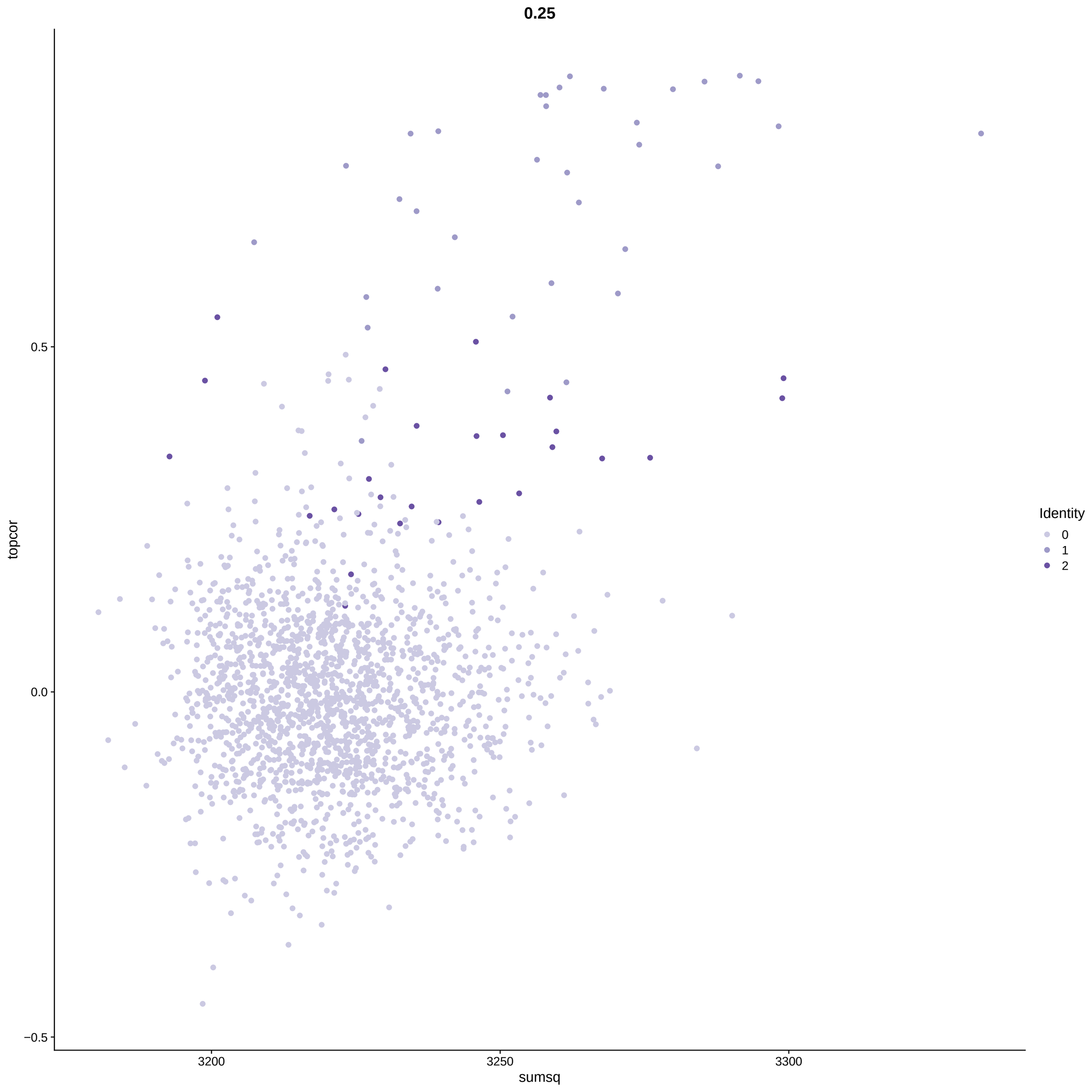
3300

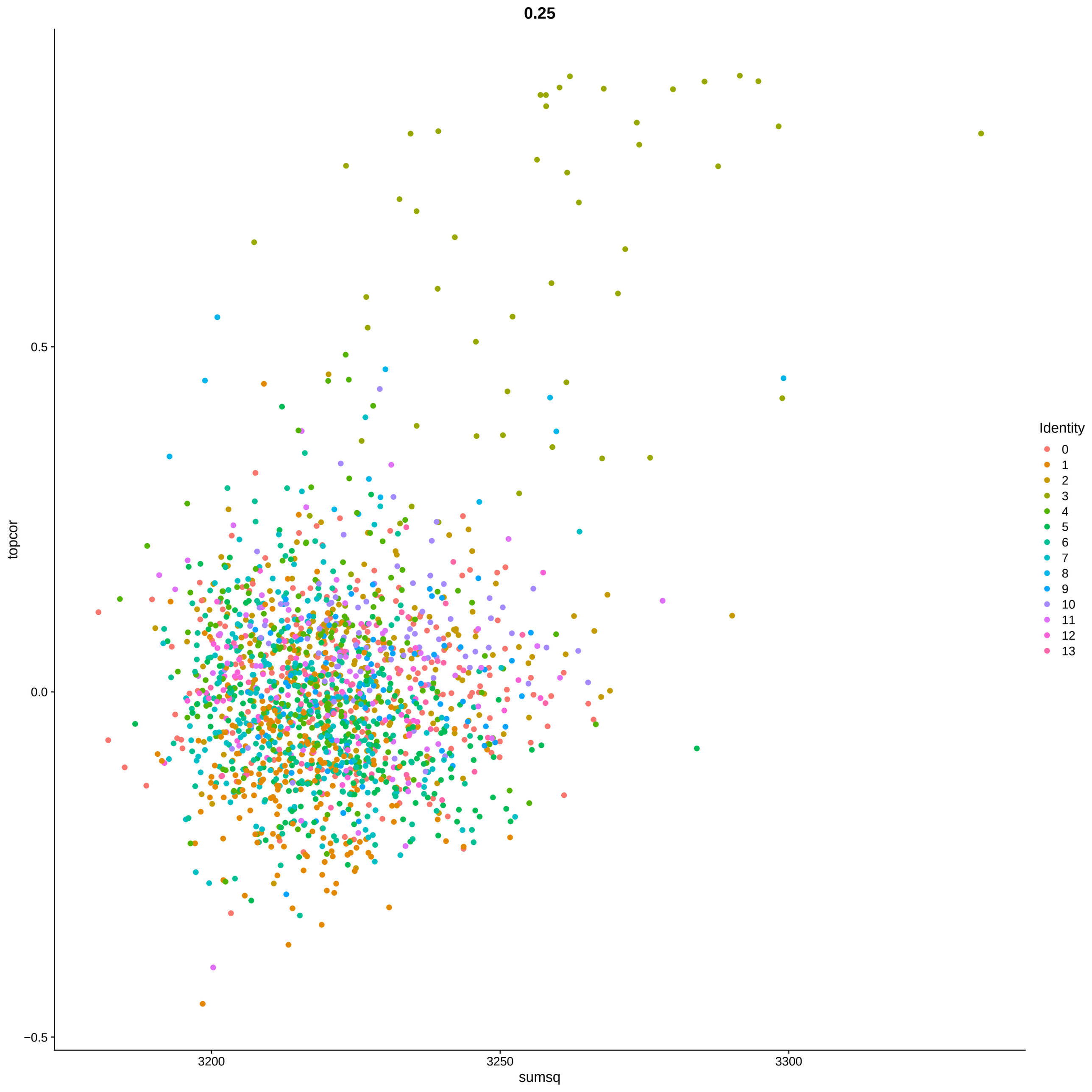
sumsq

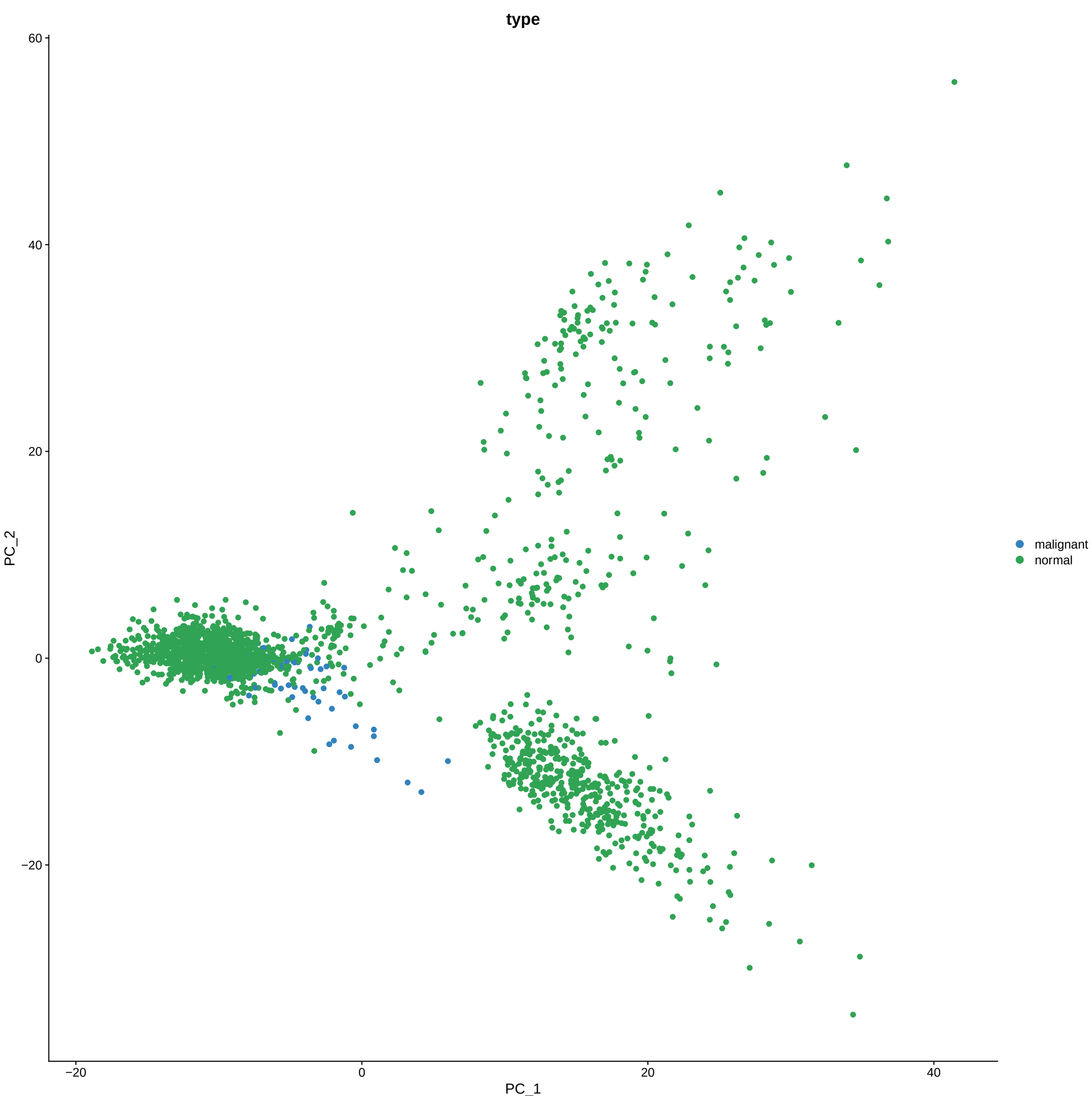
Identity

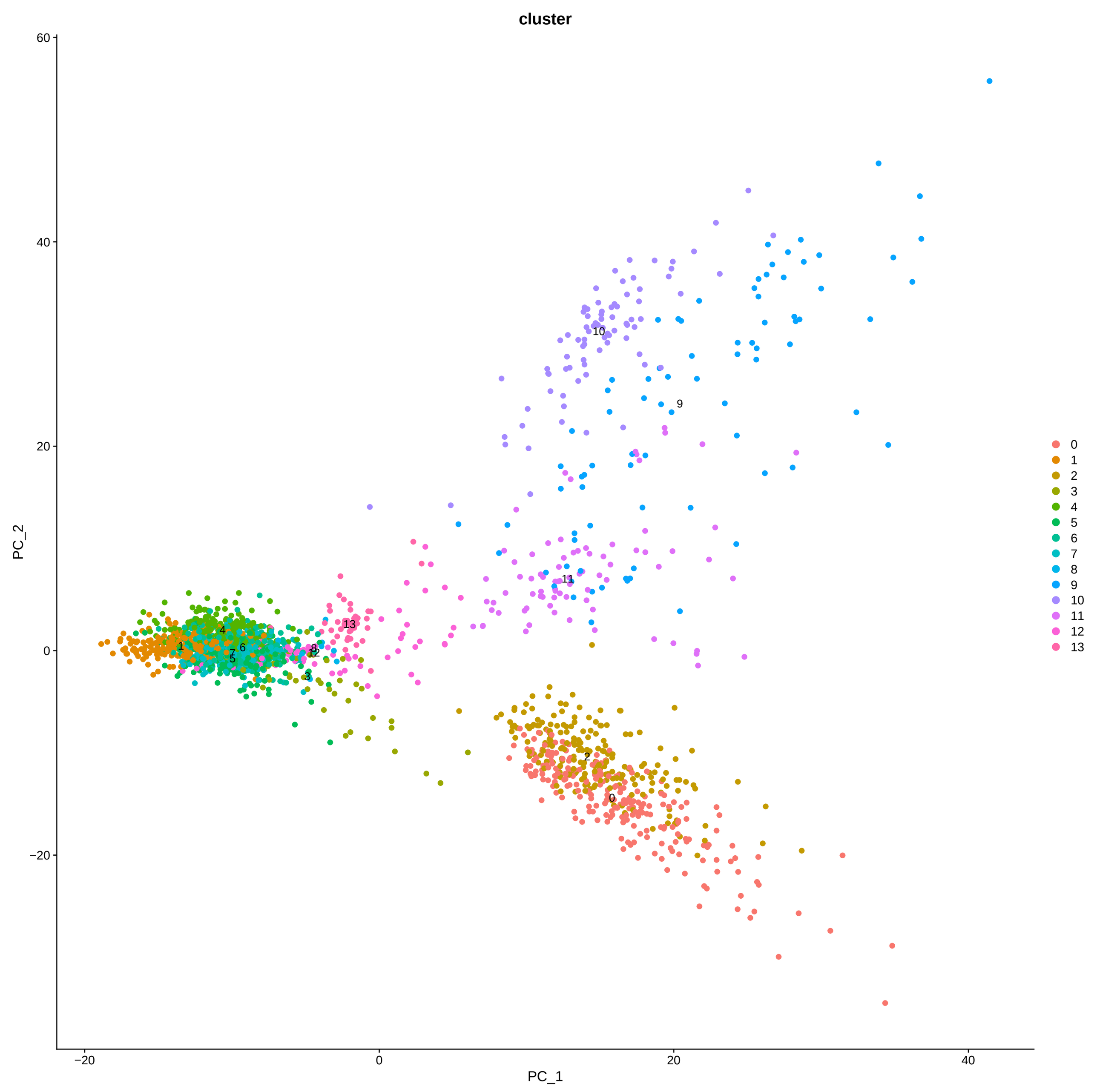
malignant

normal


0.25
0.5
0.0
−0.5
topcor
3200
3250
3300
sumsq
Identity
0
1
2


0.25
0.5
0.0
−0.5
topcor
3200
3250
3300
sumsq
Identity
0
1
2
3
4
5
6
7
8
9
10
11
12
13


type
malignant
normal
PC_2
PC_1
60
40
20
0
−20
−20
0
20
40


cluster
60
40
20
0
−20
PC_2
−20
0
20
40
PC_1
10
9
11
13
4
1
6
7
5
8
12
3
2
0
0
1
2
3
4
5
6
7
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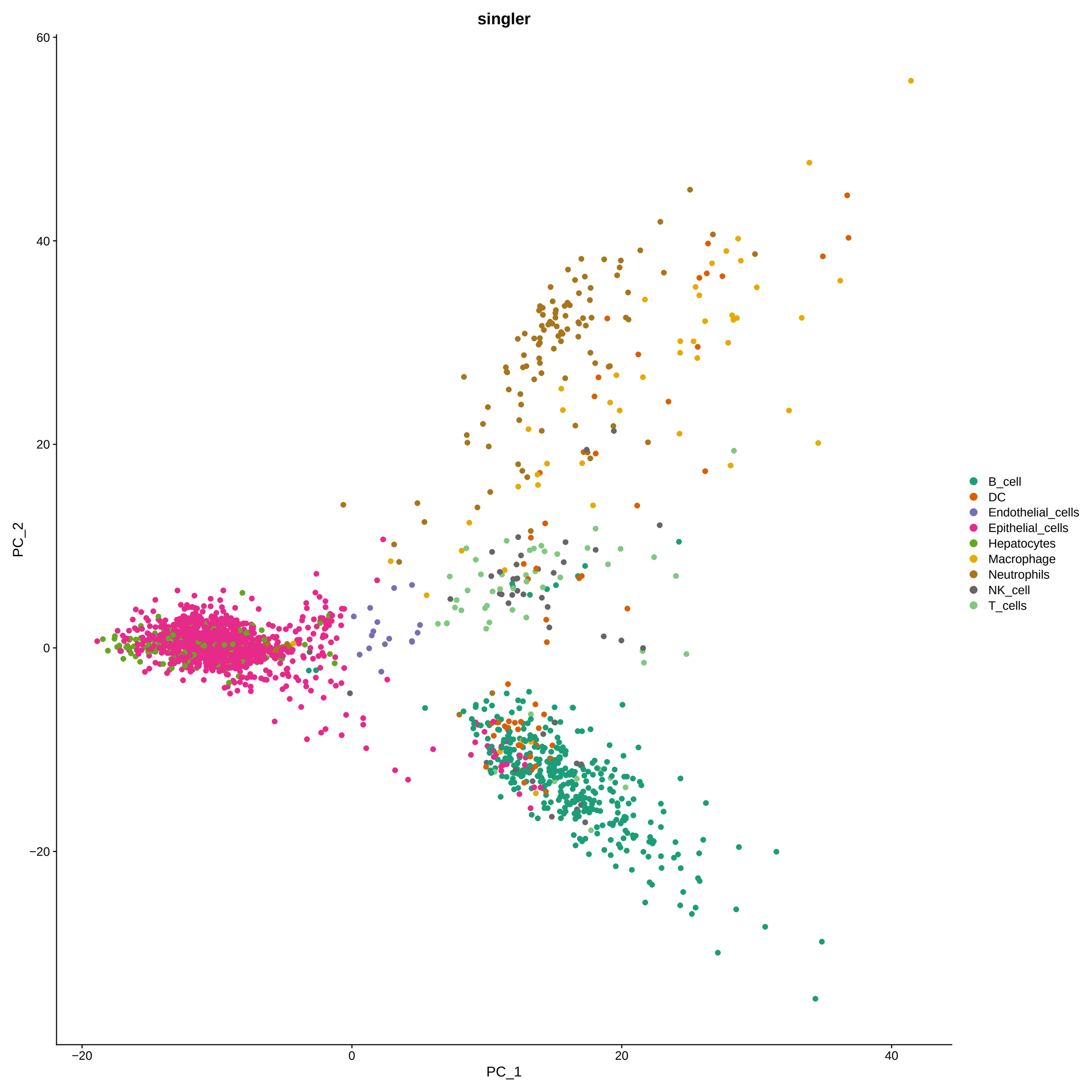
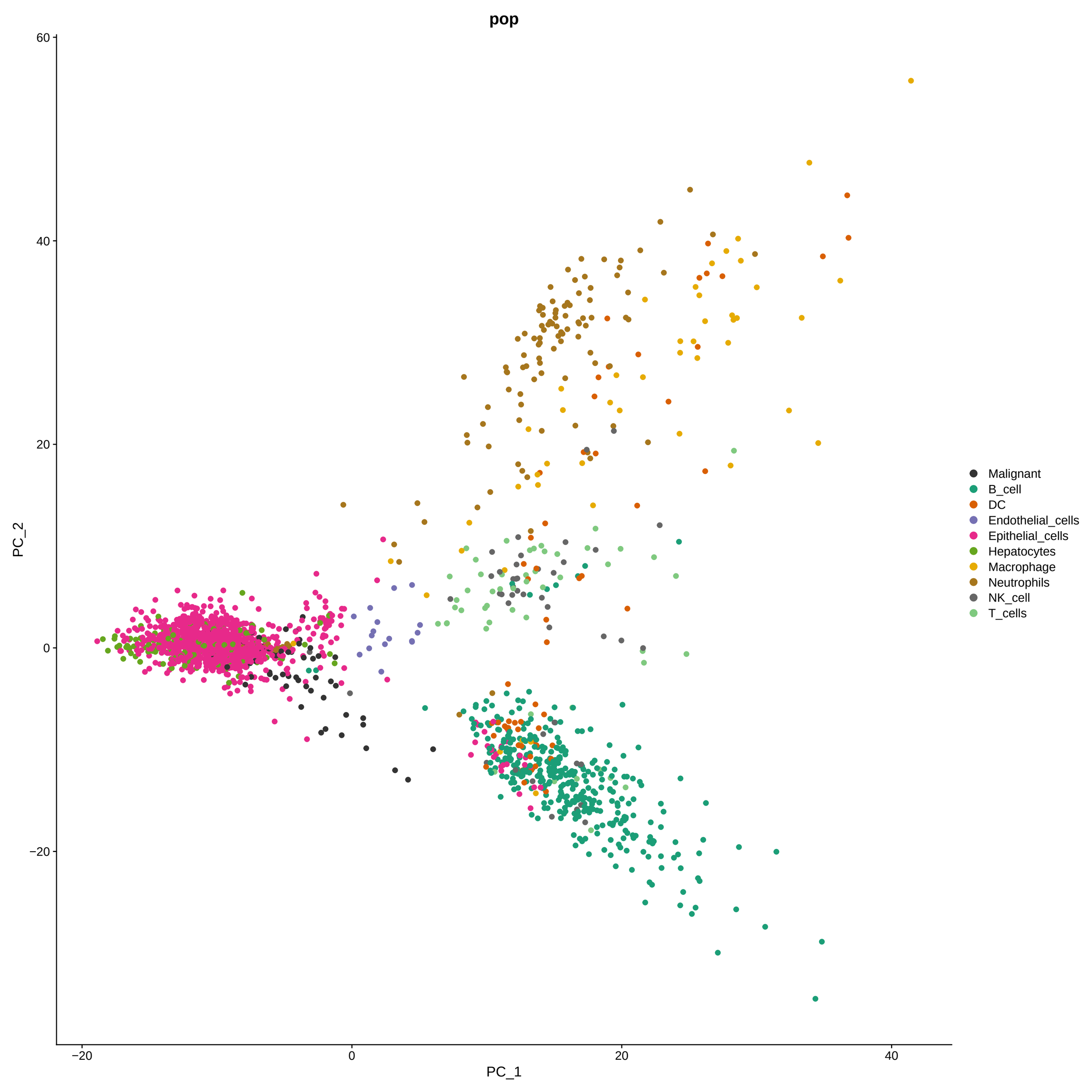
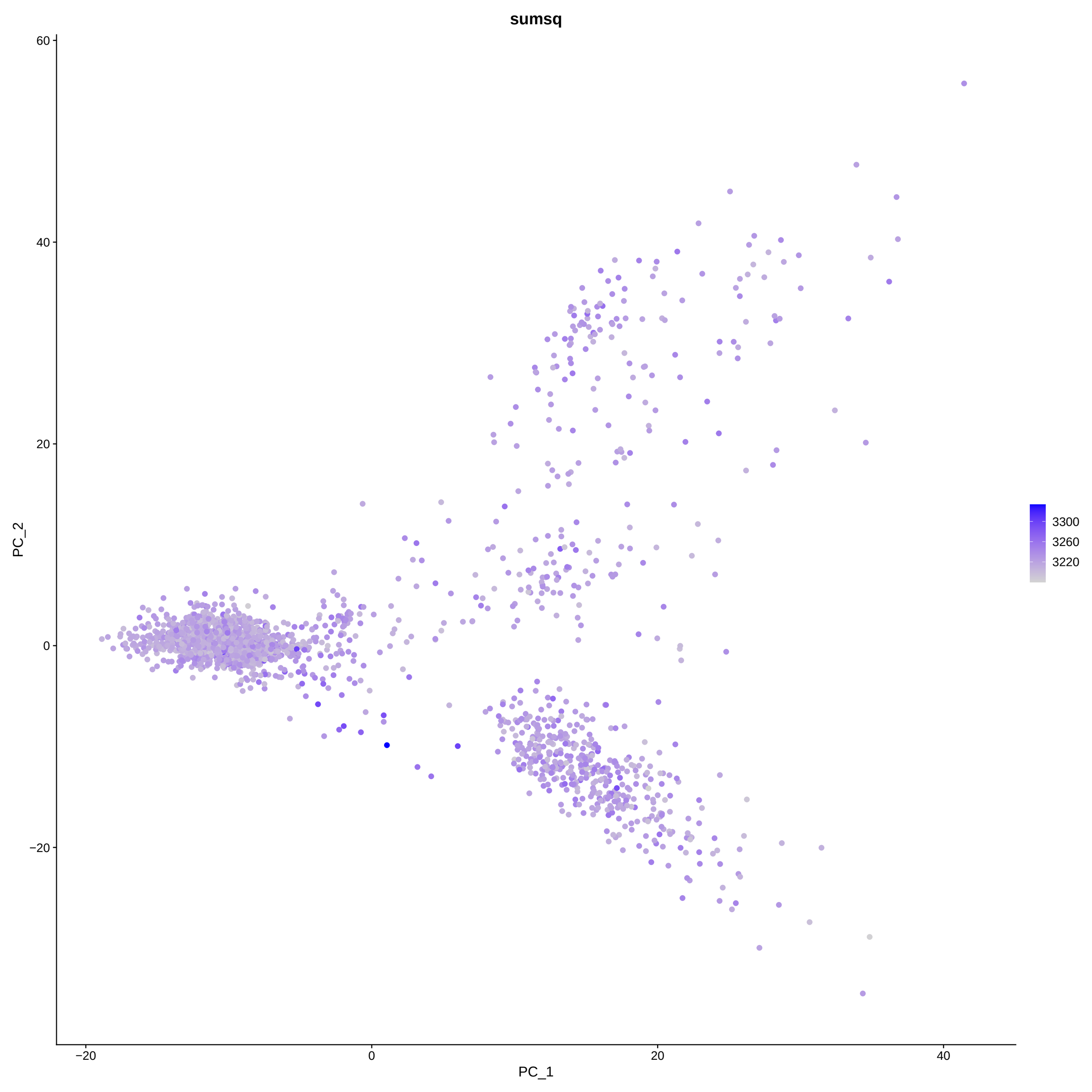
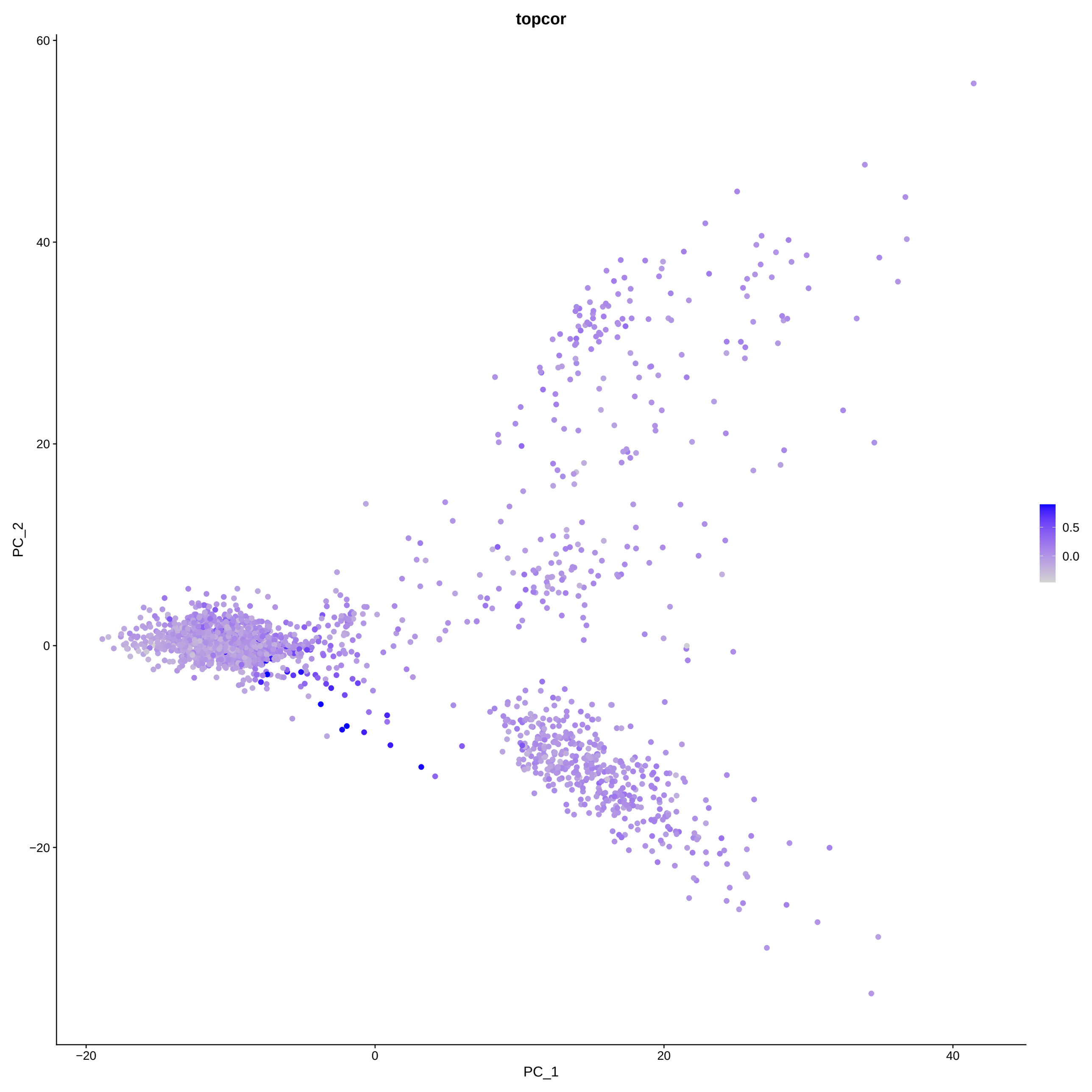
10
11
12
13


singler
60
40
20
0
−20
PC_2
−20
0
20
40
PC_1
B_cell
DC
Endothelial_cells
Epithelial_cells
Hepatocytes
Macrophage
Neutrophils
NK_cell
T_cells

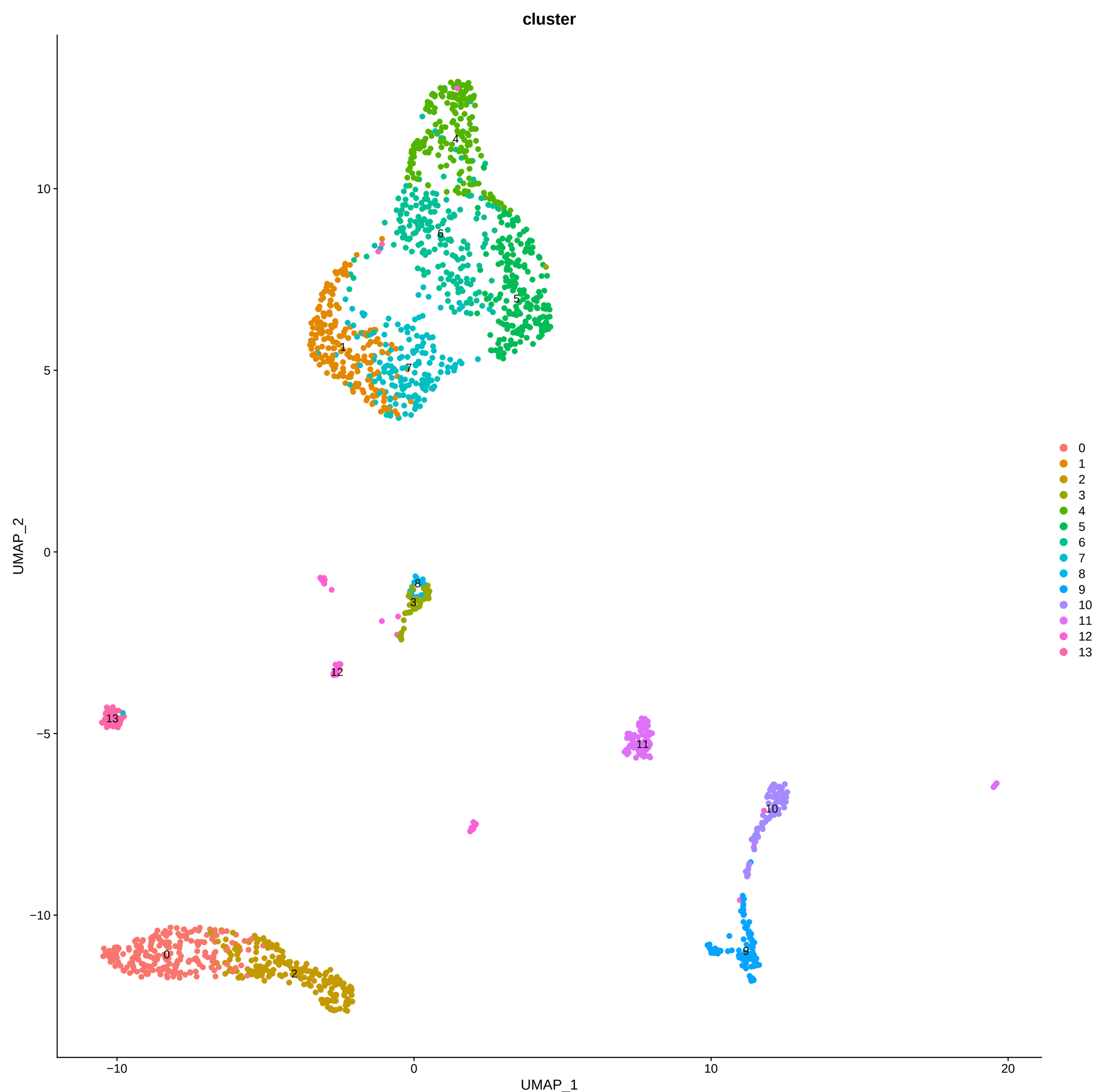

pop
60
40
20
0
−20
PC_2
−20
0
20
40
PC_1
Malignant
B_cell
DC
Endothelial_cells
Epithelial_cells
Hepatocytes
Macrophage
Neutrophils
NK_cell
T_cells

subclone
60
40
20
0
−20
PC_2
−20
0
20
40
PC_1
0
1
2


sumsq
60
40
20
0
−20
PC_2
−20
0
20
40
PC_1
3300
3260
3220


topcor
60
40
20
0
−20
PC_2
−20
0
20
40
PC_1
0.5
0.0

type
malignant
normal
10
5
0
−5
−10
UMAP_2
−10
0
10
20
UMAP_1


cluster
UMAP_2
UMAP_1
10
5
0
−5
−10
−10
0
10
20
0
1
2
3
4
5
6
7
8
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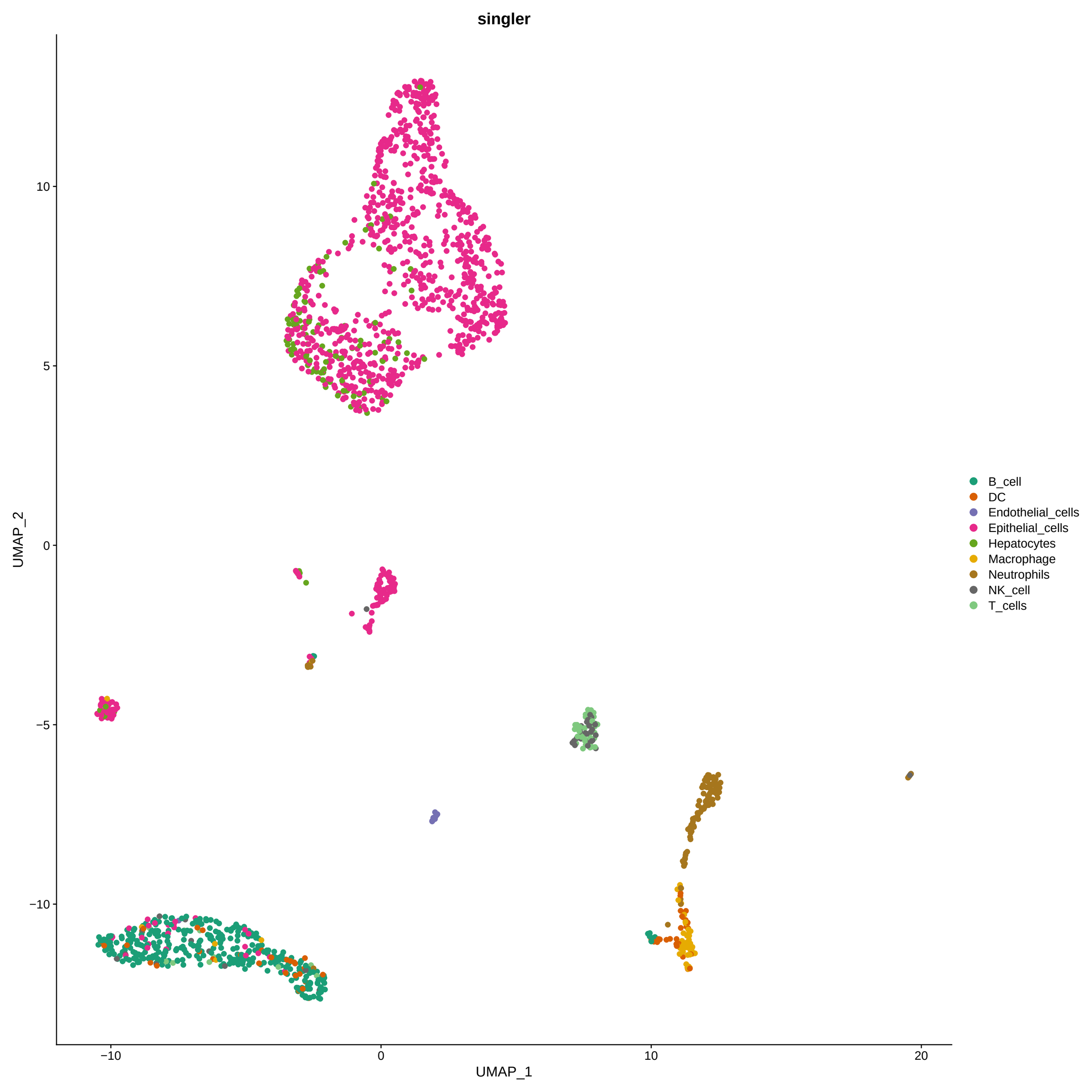
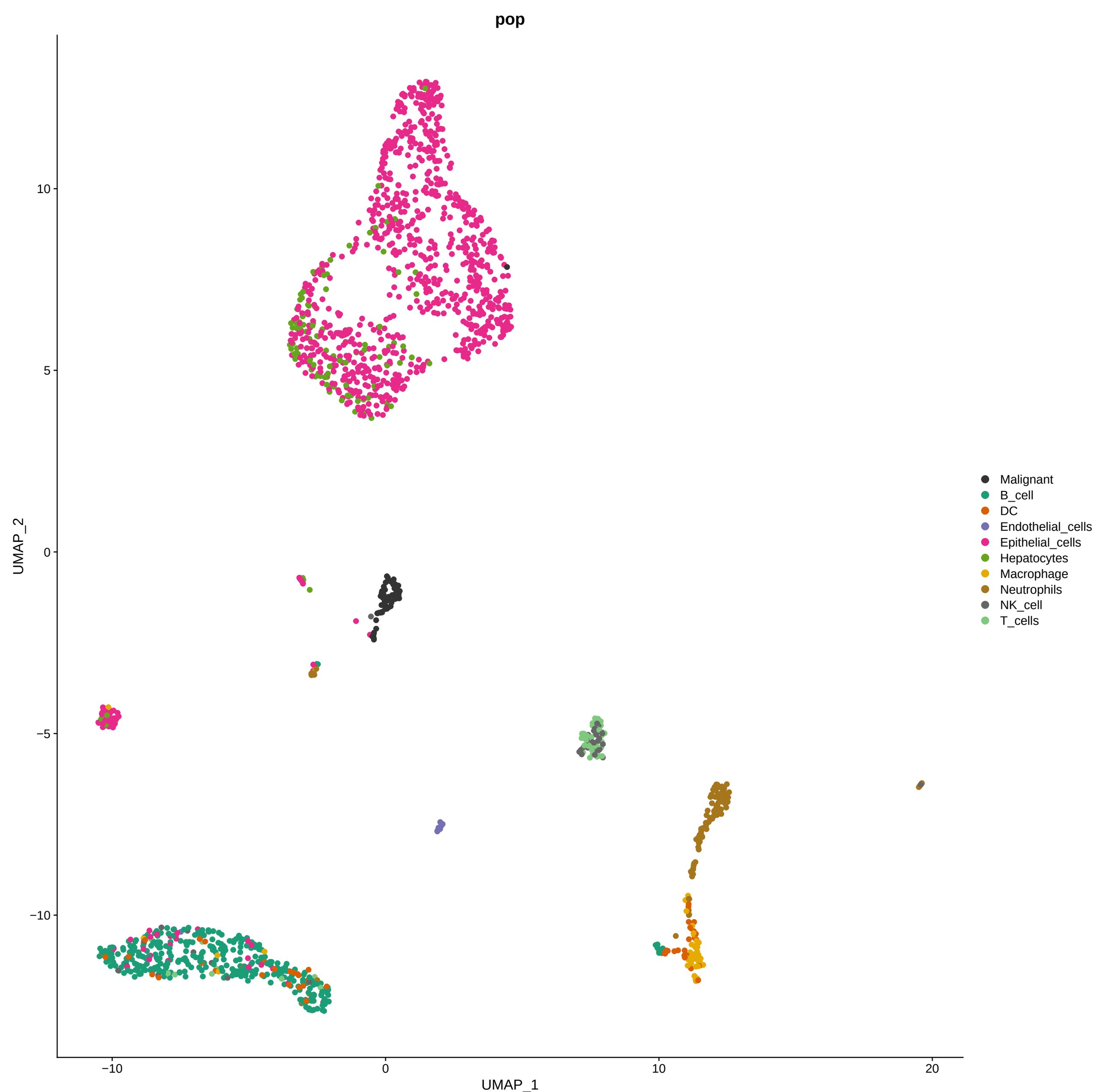
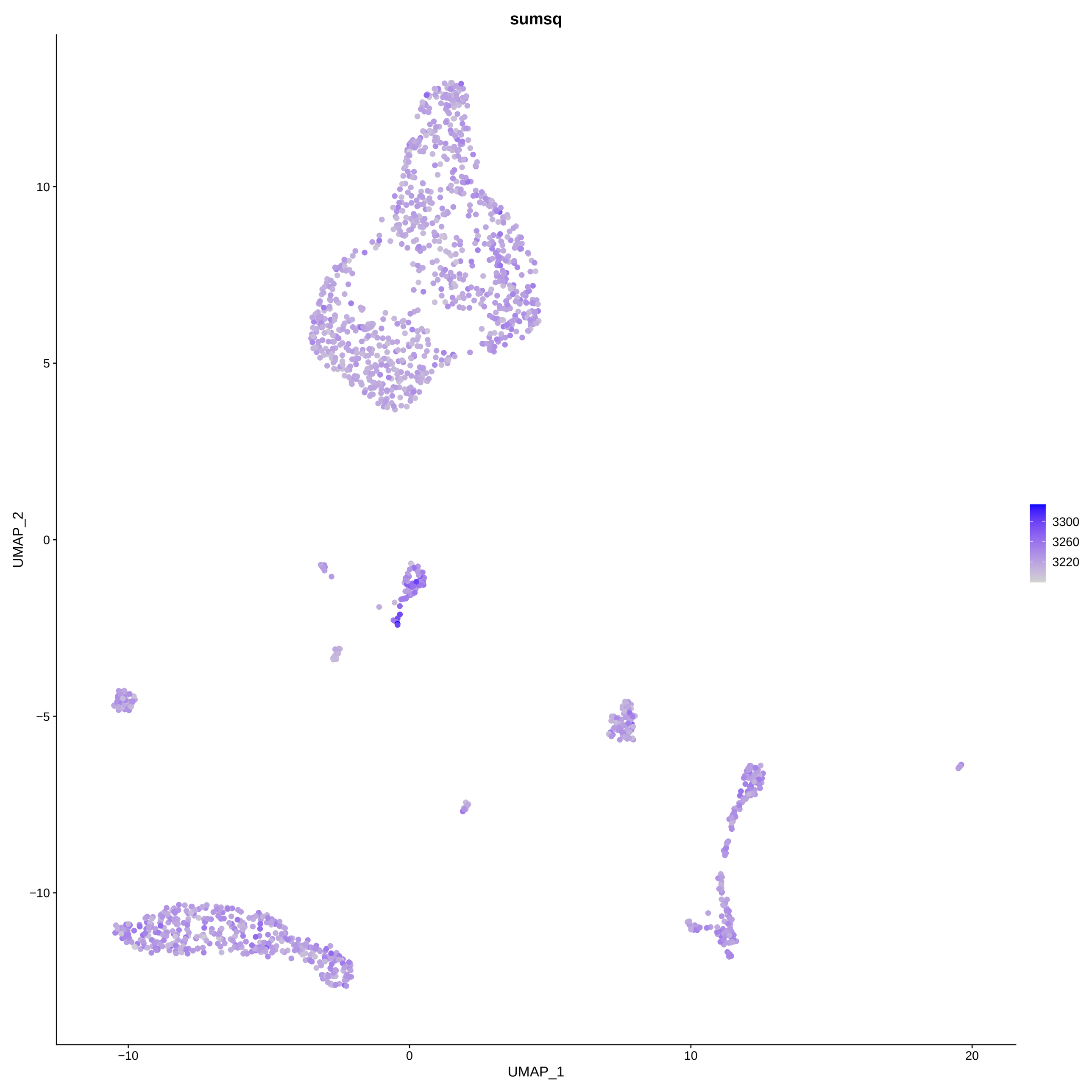
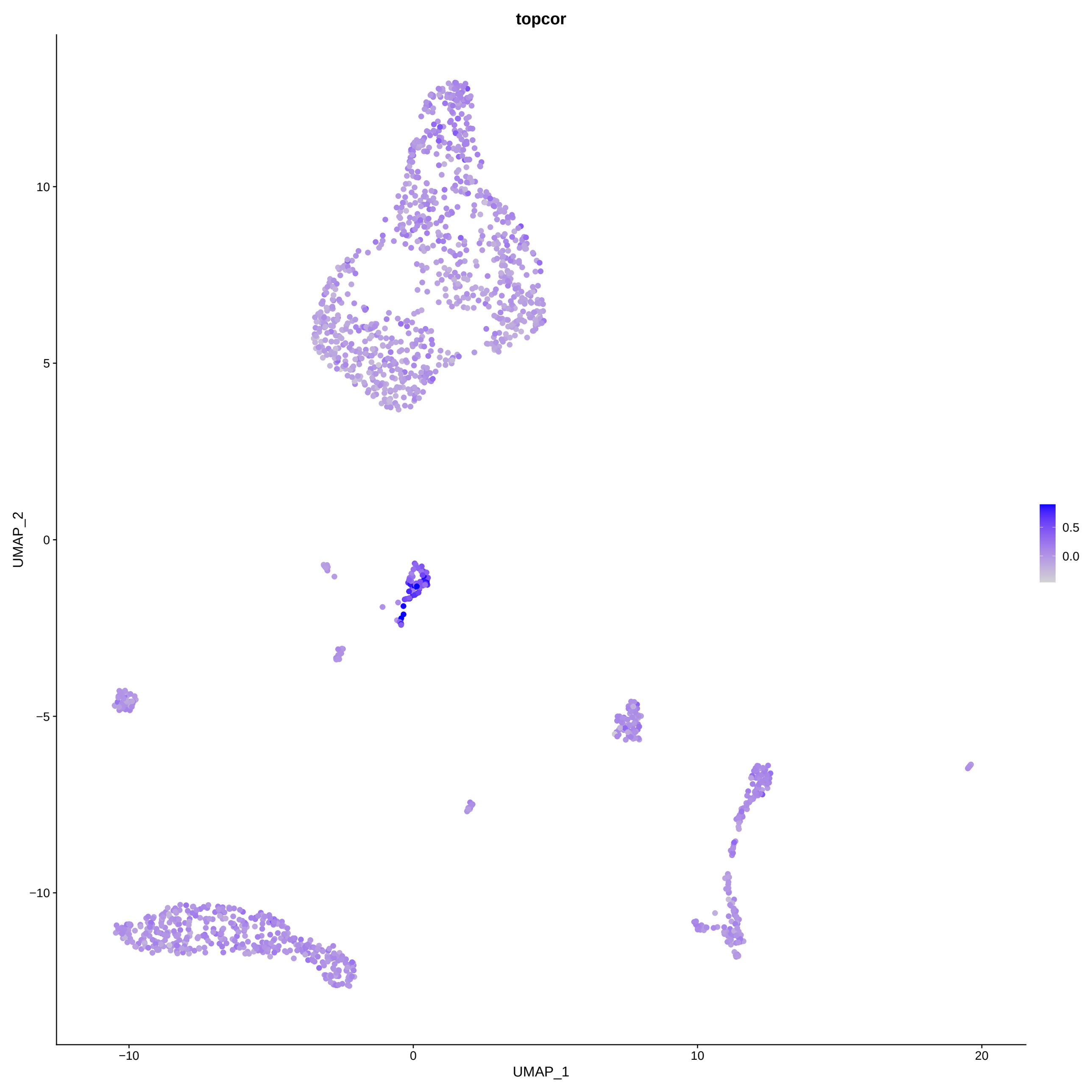
10
11
12
13


singler
UMAP_2
10
5
0
−5
−10
−10
0
10
20
UMAP_1
B_cell
DC
Endothelial_cells
Epithelial_cells
Hepatocytes
Macrophage
Neutrophils
NK_cell
T_cells


pop
10
5
0
−5
−10
UMAP_2
−10
0
10
20
UMAP_1
Malignant
B_cell
DC
Endothelial_cells
Epithelial_cells
Hepatocytes
Macrophage
Neutrophils
NK_cell
T_cells

subclone
10
5
0
−5
−10
UMAP_2
−10
0
10
20
UMAP_1
0
1
2


sumsq
10
5
UMAP_2
0
−5
−10
3300
3260
3220
−10
0
10
20
UMAP_1


topcor
10
5
UMAP_2
0
−5
−10
0.5
0.0
−10
0
10
20
UMAP_1