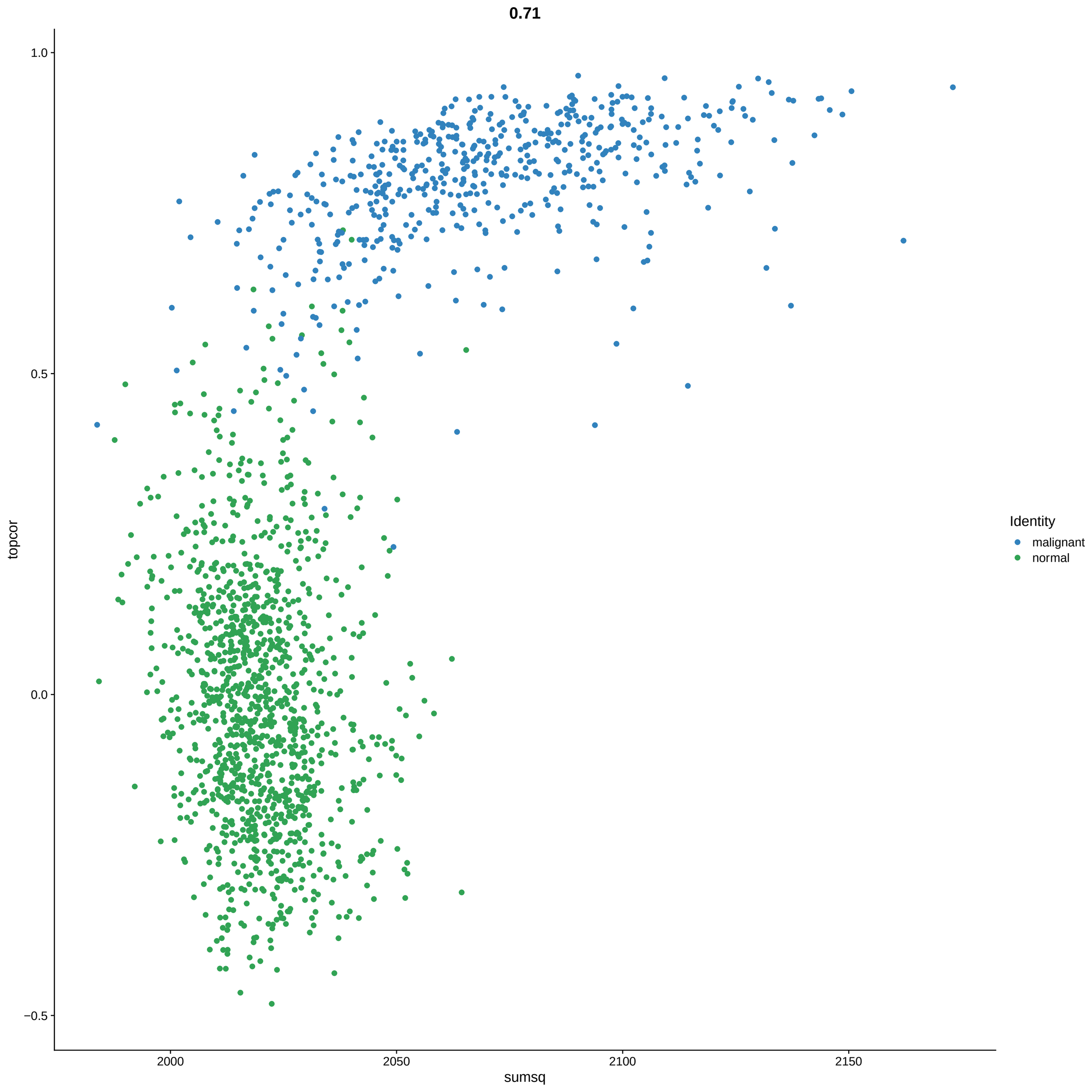
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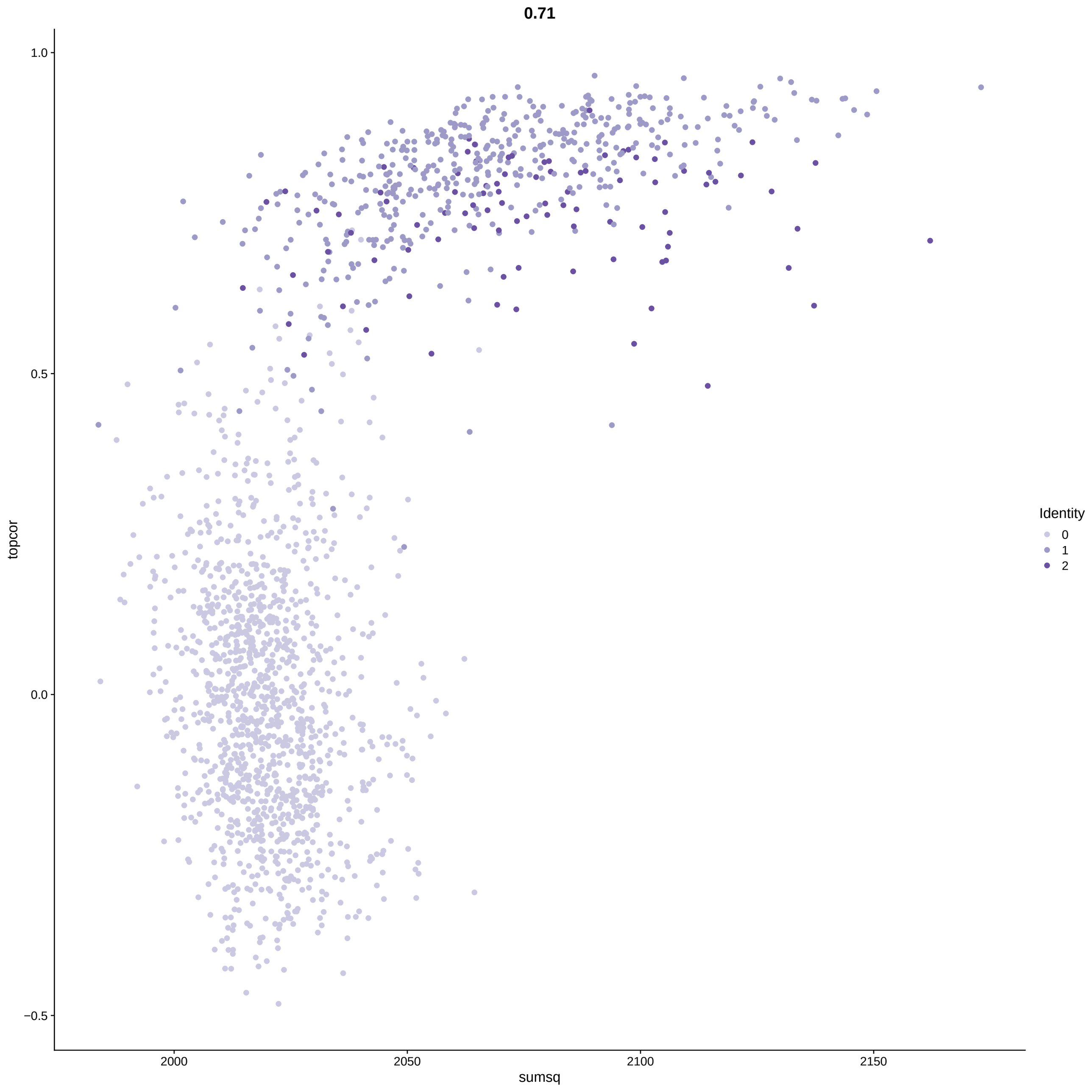
0.5
0.0
−0.5
topcor
2000
2050
2100
2150
sumsq
Identity
malignant
normal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topcor
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2100
2150
sumsq
Identity
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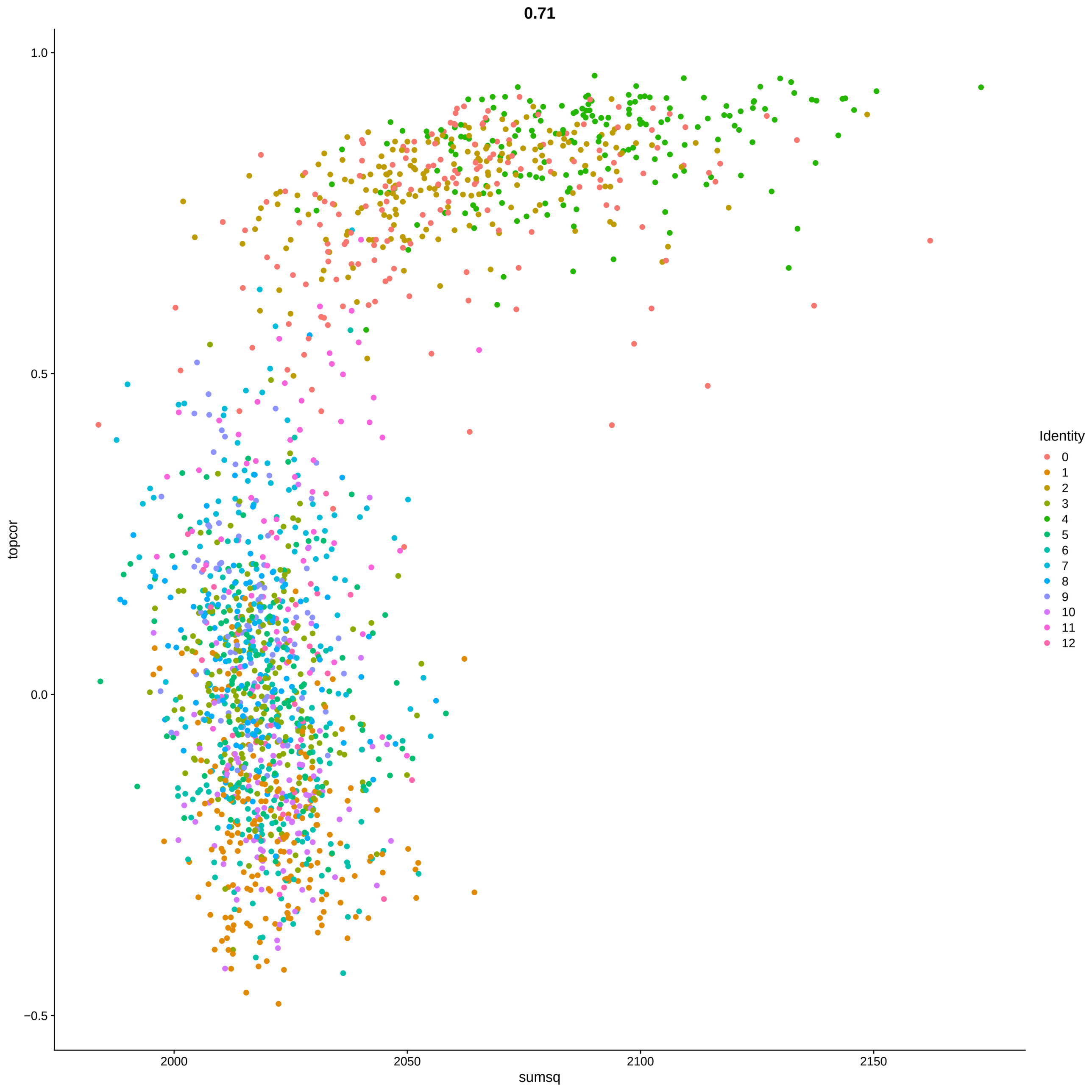
0.71
topcor
1.0
0.5
0.0
−0.5
2000
2050
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2150
sumsq
Identity
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5
6
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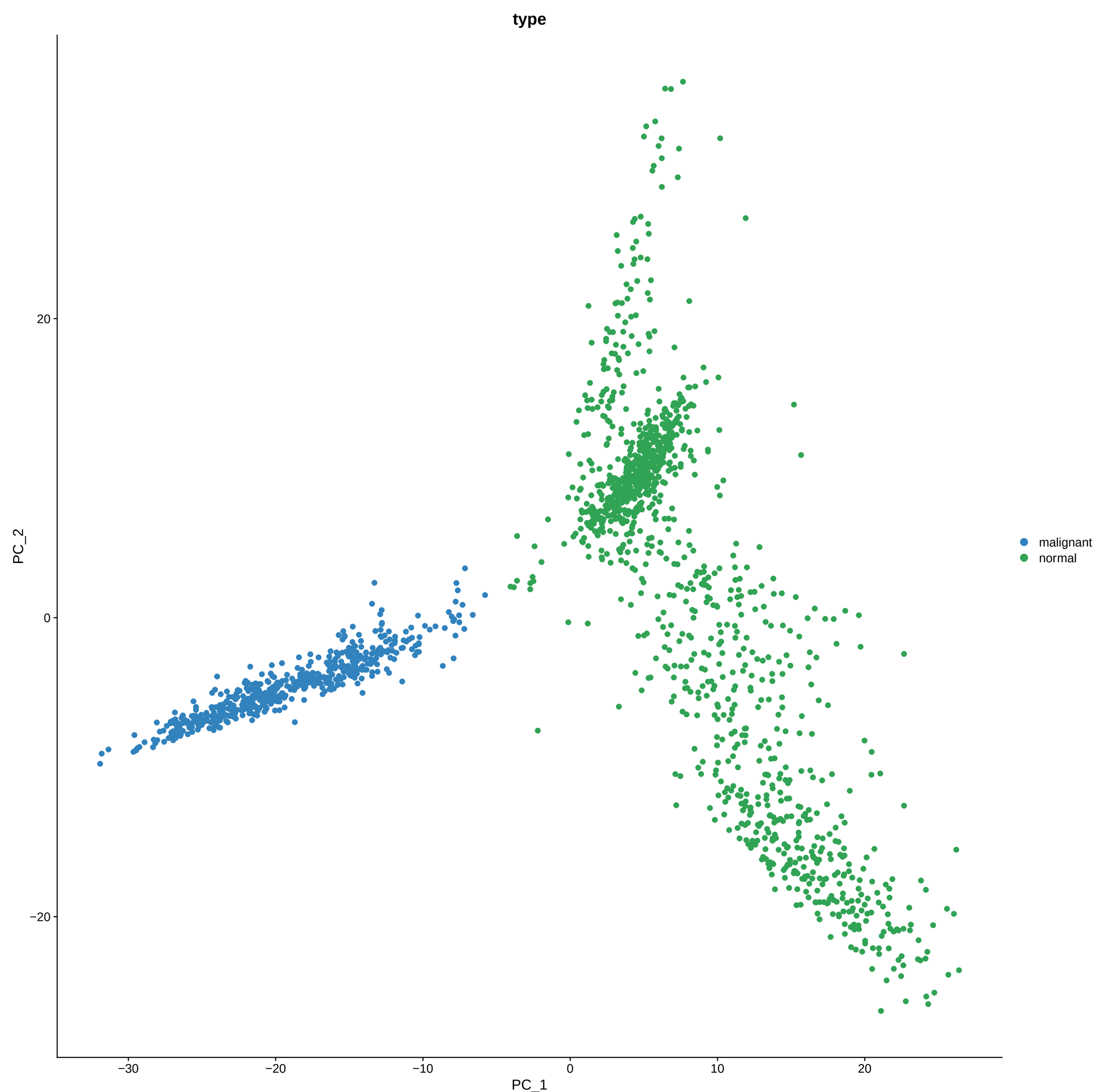
9
10
11
12


type
malignant
normal
PC_2
20
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−20
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−20
−10
0
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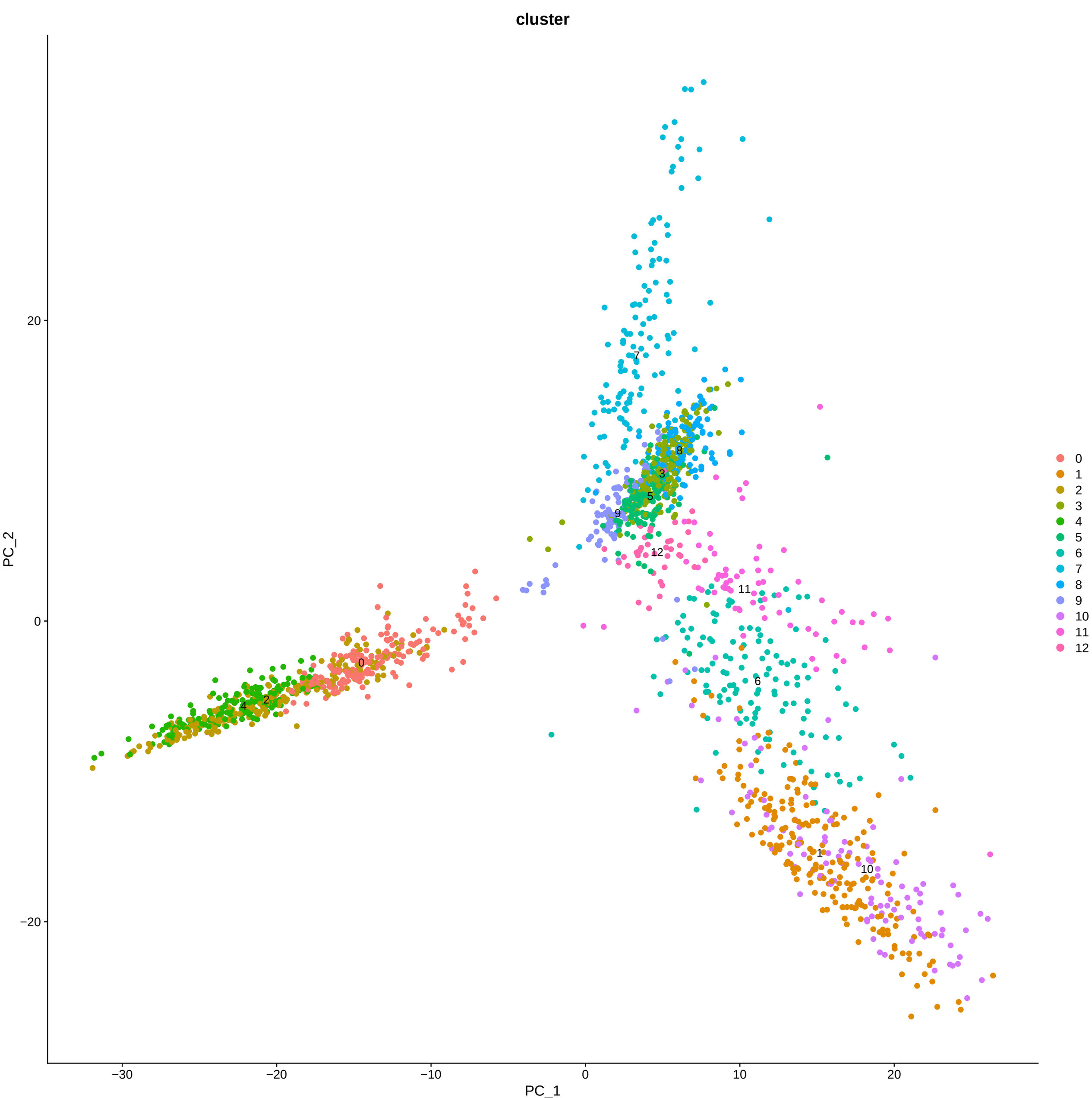
20
PC_1


cluster
PC_2
PC_1
20
0
−20
−30
−20
−10
0
10
20
0
1
2
3
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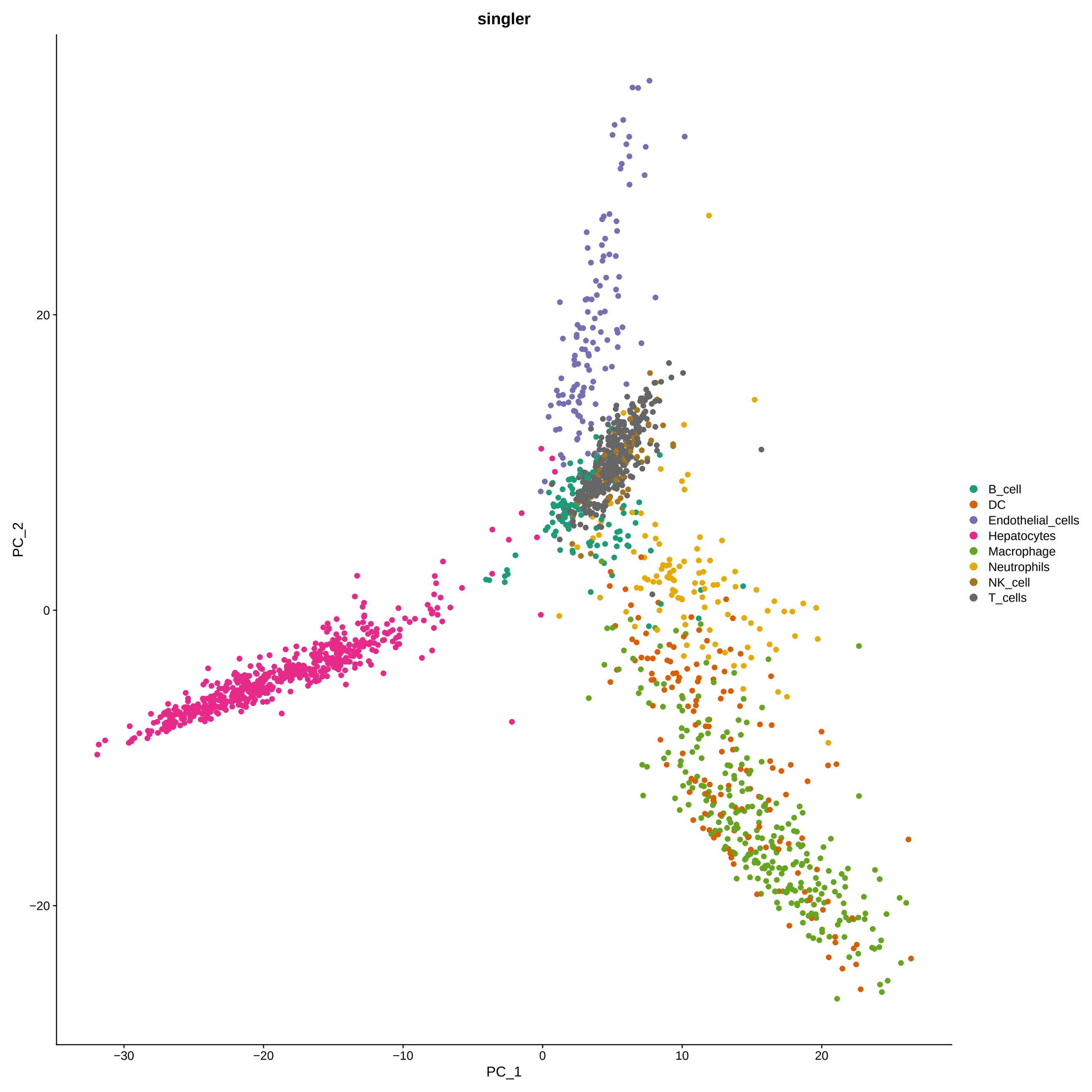
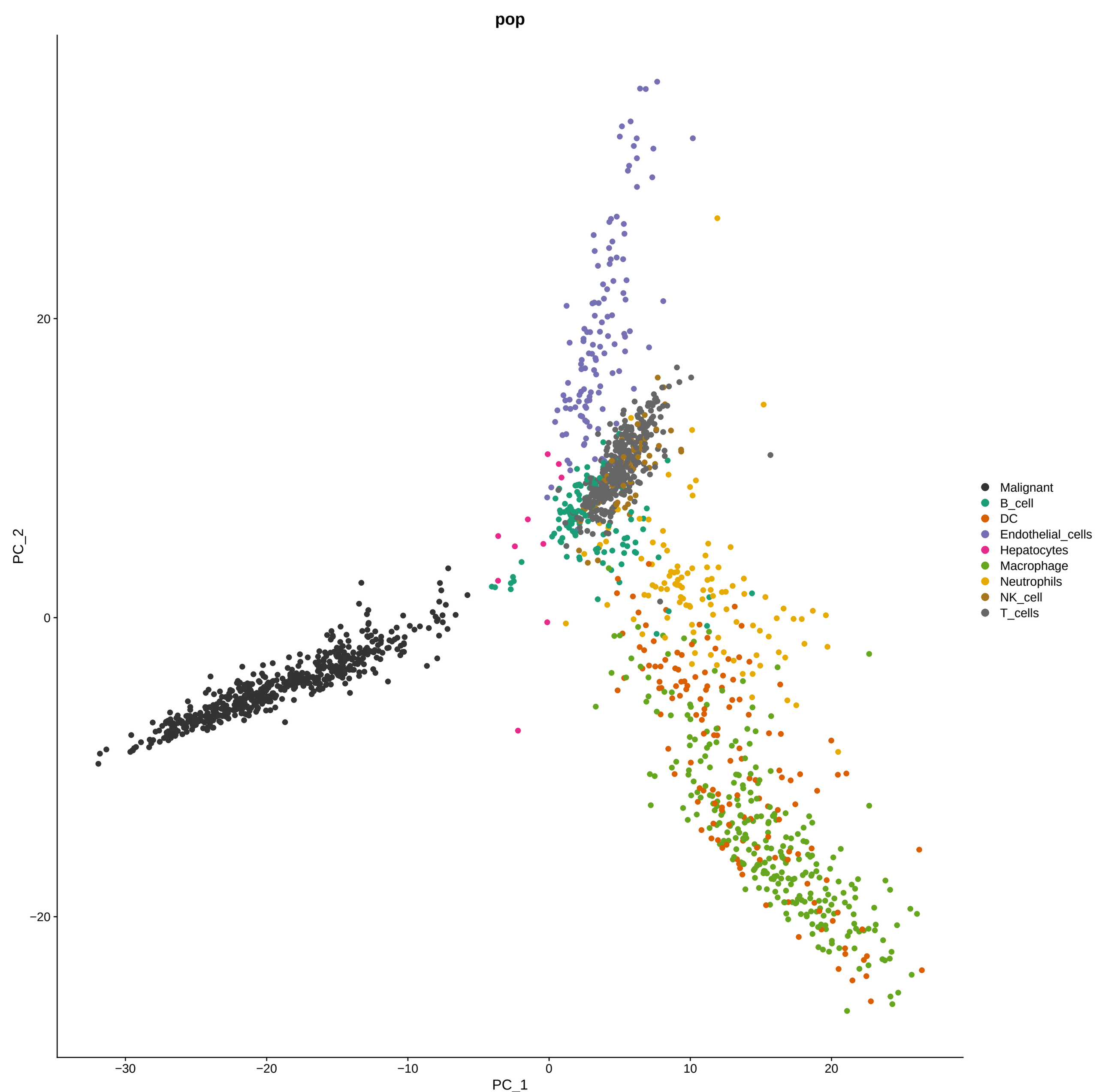
9
10
11
12


singler
PC_2
20
0
−20
−30
−20
−10
0
10
20
PC_1
B_cell
DC
Endothelial_cells
Hepatocytes
Macrophage
Neutrophils
NK_cell
T_cells


pop
Malignant
B_cell
DC
Endothelial_cells
Hepatocytes
Macrophage
Neutrophils
NK_cell
T_cells
PC_2
20
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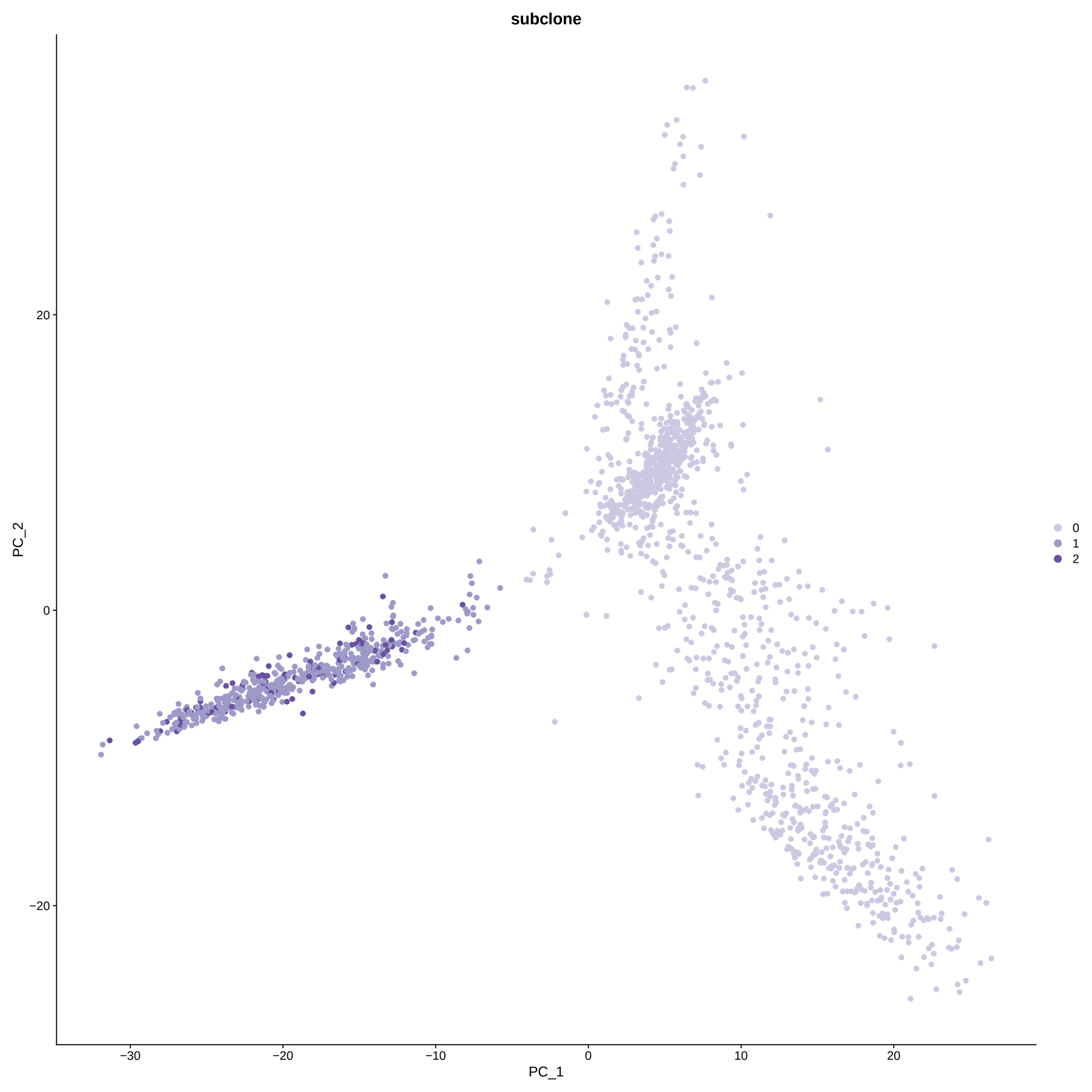
−20
−30
−20
−10
0
10
20
PC_1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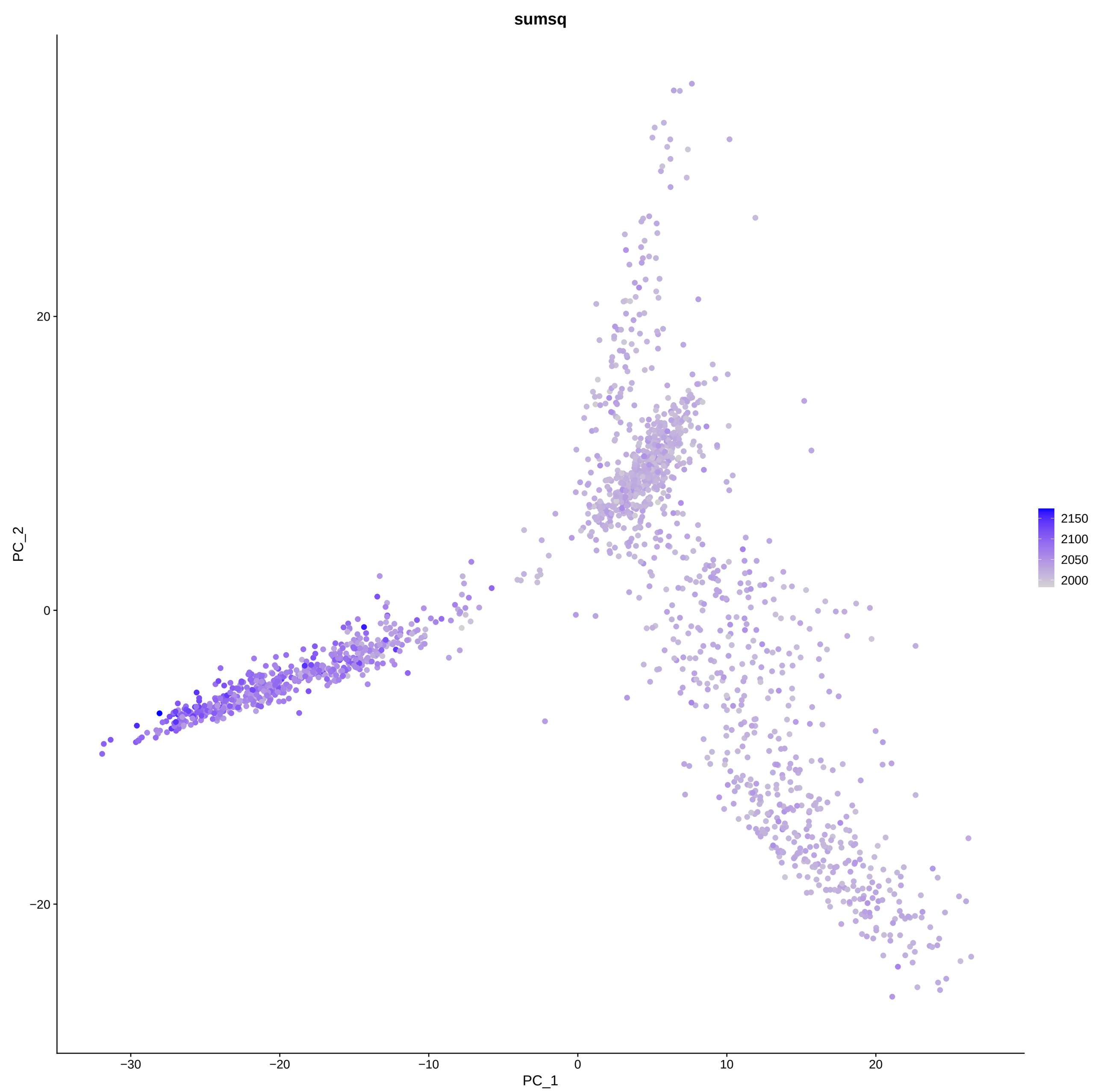
20
0
−20
PC_2
−30
−20
−10
0
10
20
PC_1
0
1
2


sumsq
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0
−20
PC_2
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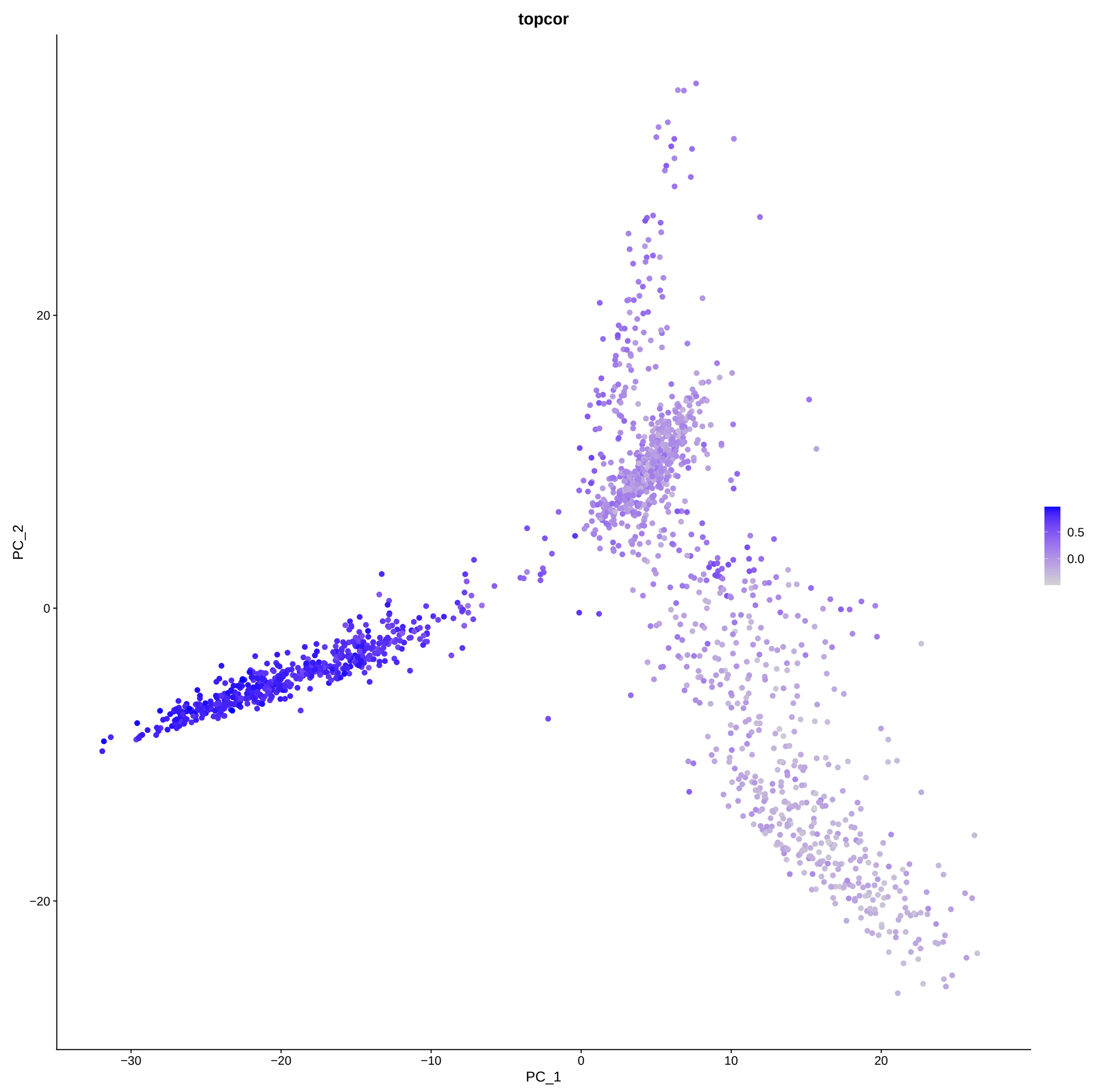
−20
−10
0
10
20
PC_1
2150
2100
2050
2000


topcor
20
0
−20
PC_2
−30
−20
−10
0
10
20
PC_1
0.5
0.0

type

UMAP_2

10

0

−10

−10

−5

0

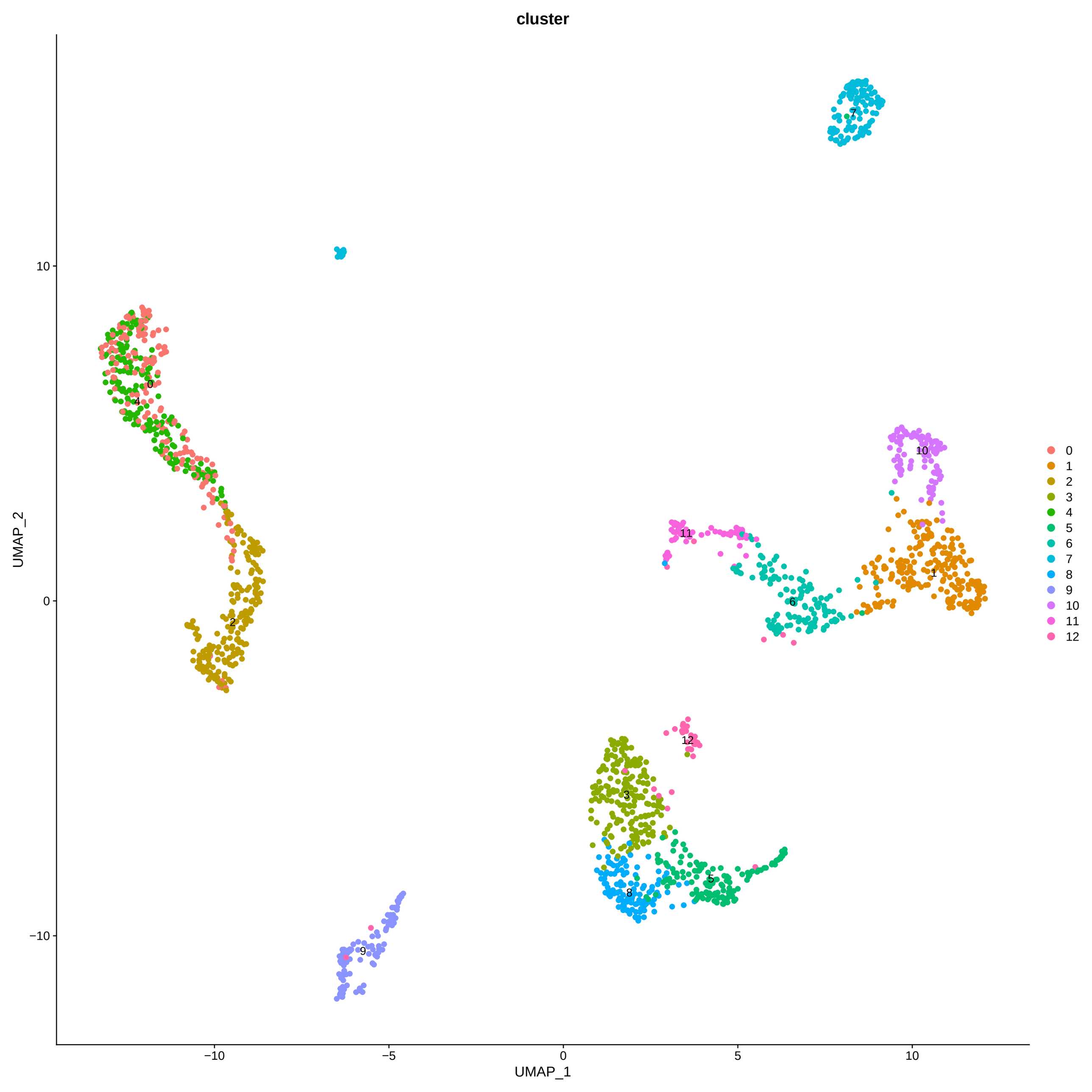
5

10

UMAP_1

malignant

normal


cluster
UMAP_2
UMAP_1
10
0
−10
−10
−5
0
5
10
0
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7
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11
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12
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11
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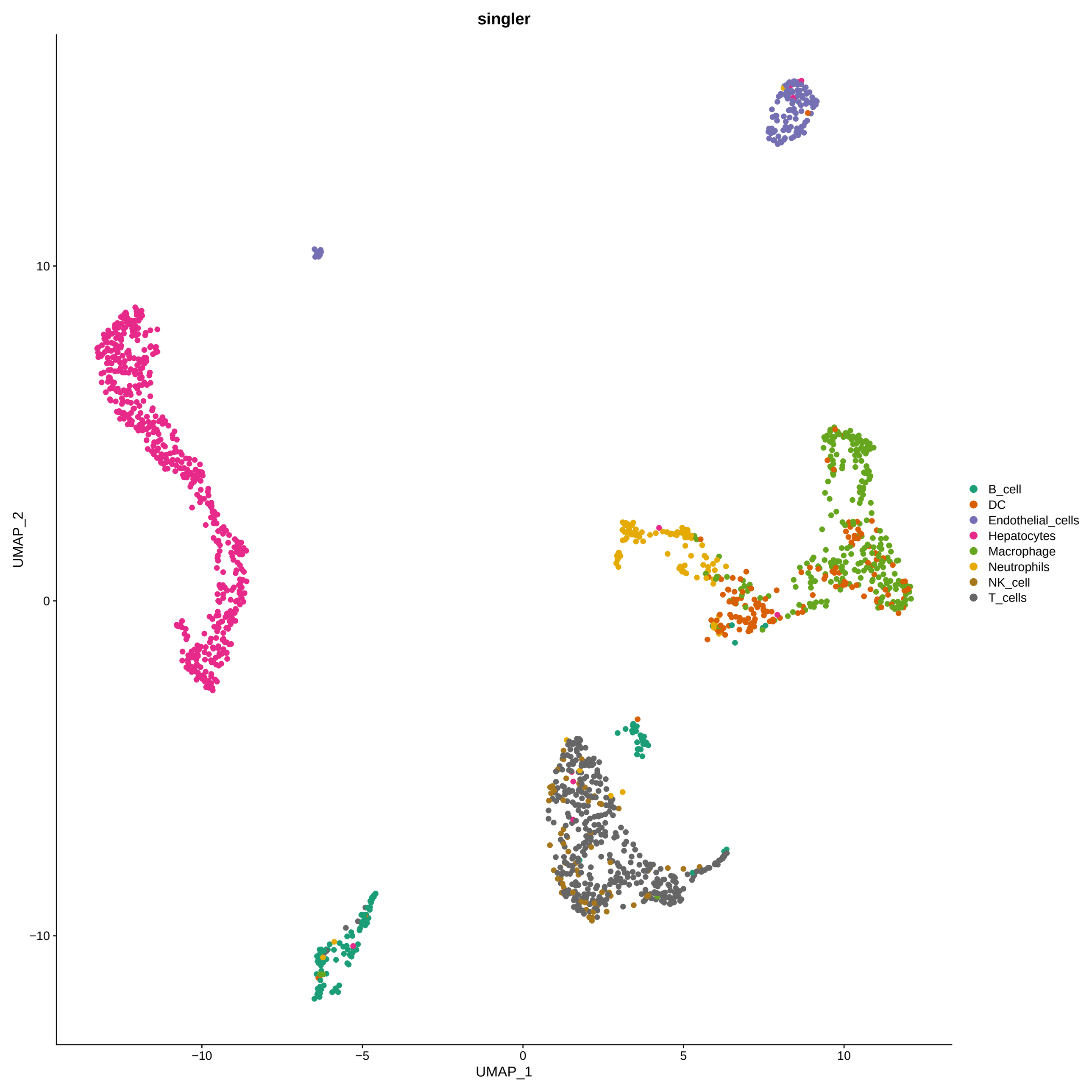
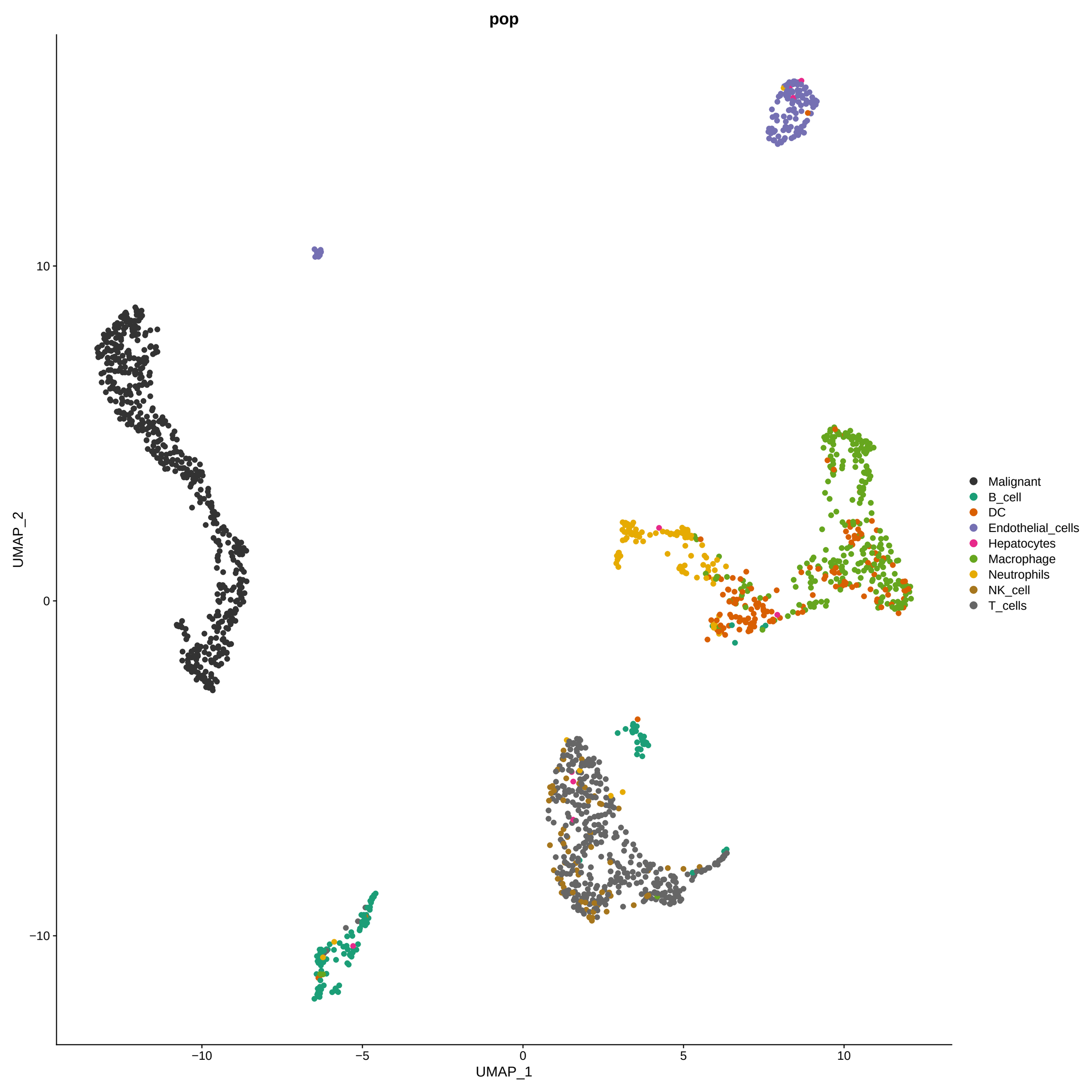
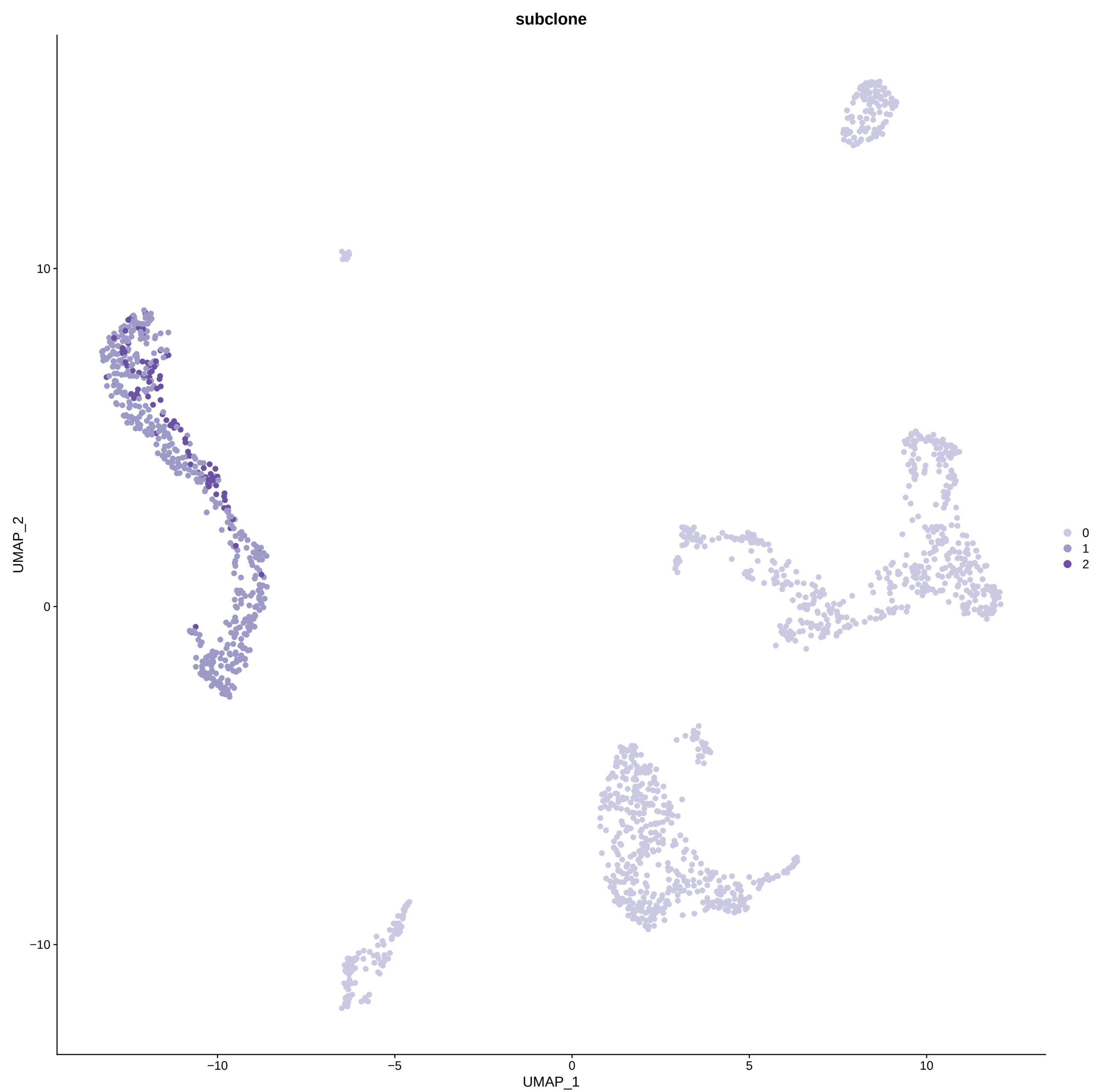
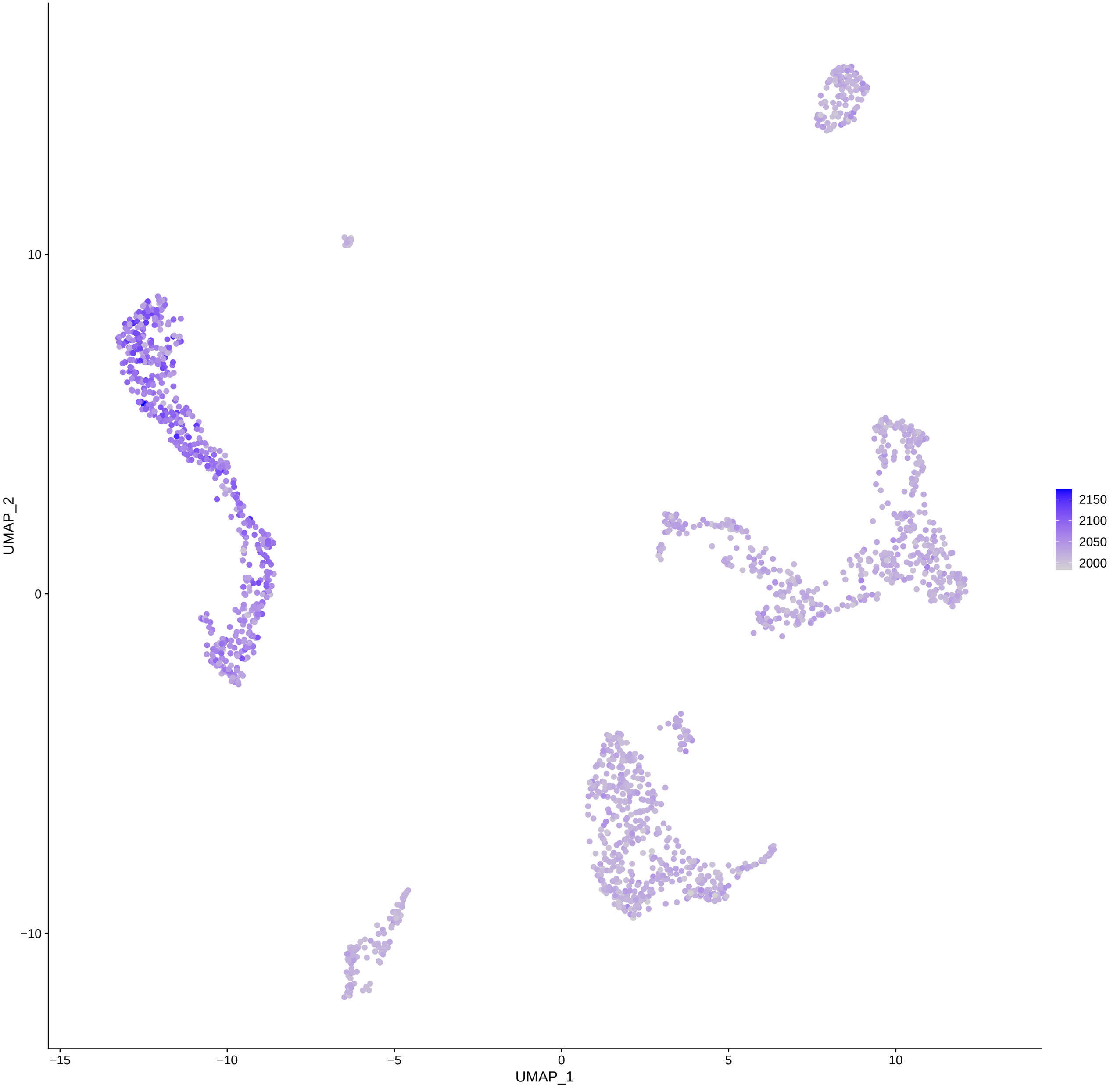
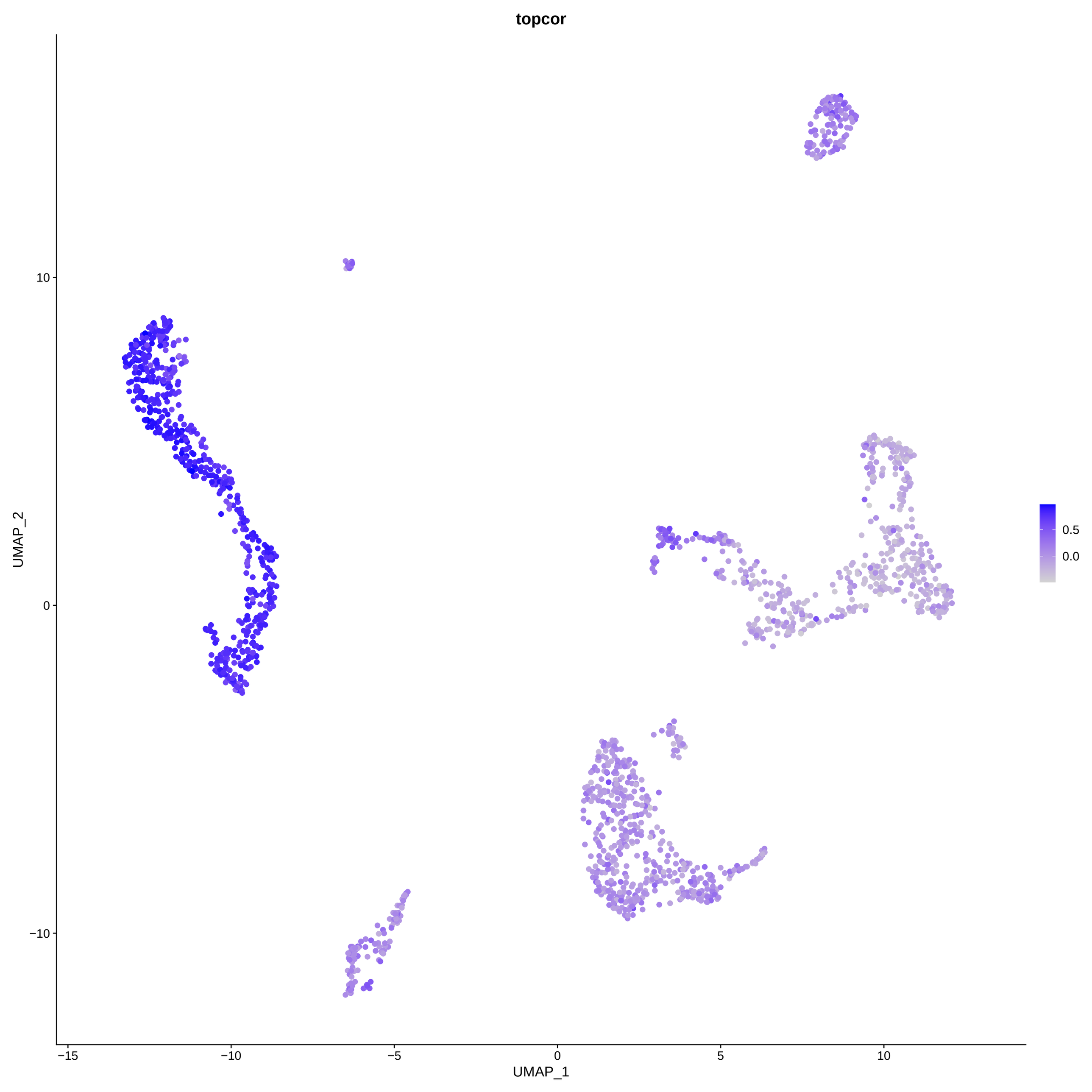

singler
UMAP_2
10
0
−10
−10
−5
0
5
10
UMAP_1
B_cell
DC
Endothelial_cells
Hepatocytes
Macrophage
Neutrophils
NK_cell
T_cells


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


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


sumsq
UMAP_2
UMAP_1
10
0
−10
−15
−10
−5
0
5
10
2150
2100
2050
2000


topcor
10
0
−10
UMAP_2
−15
−10
−5
0
5
10
UMAP_1
0.5
0.0