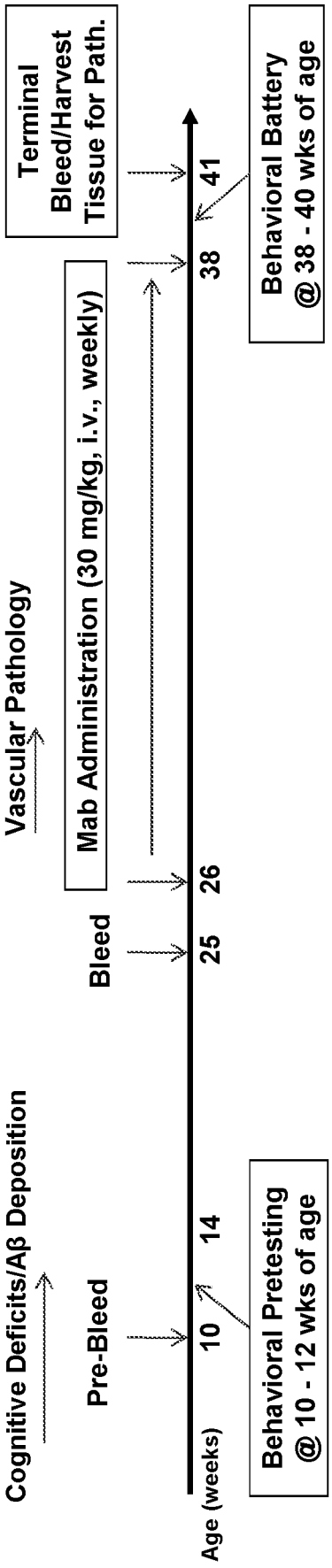

Terminal Bleed/Harvest Tissue for Path.
Behavioral Battery @ 38 - 40 wks of age
Vascular Pathology
Mab Administration (30 mg/kg, i.v., weekly)
Bleed
Cognitive Deficits/Aβ Deposition
Pre-Bleed
Behavioral Pretesting @ 10 - 12 wks of age
Age (weeks)
10
14
25
26
38
41

FIG. 1

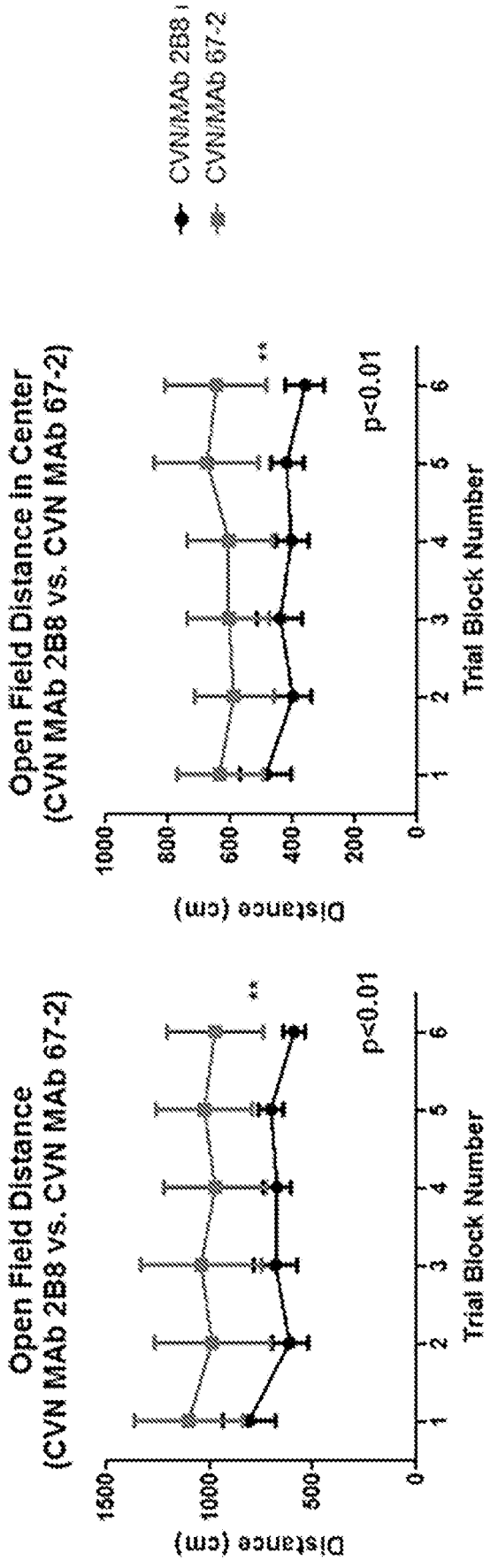

Open Field Distance
(CVN MAb 2B8 vs. CVN MAb 67-2)
Distance (cm)
1500
1000
500
0
1
2
3
4
5
6
Trial Block Number
**
p<0.01
Open Field Distance in Center
(CVN MAb 2B8 vs. CVN MAb 67-2)
Distance (cm)
1000
800
600
400
200
0
1
2
3
4
5
6
Trial Block Number
**
p<0.01
CVNMAb 2B8
CVNMAb 67-2

FIG. 2A

FIG. 2B

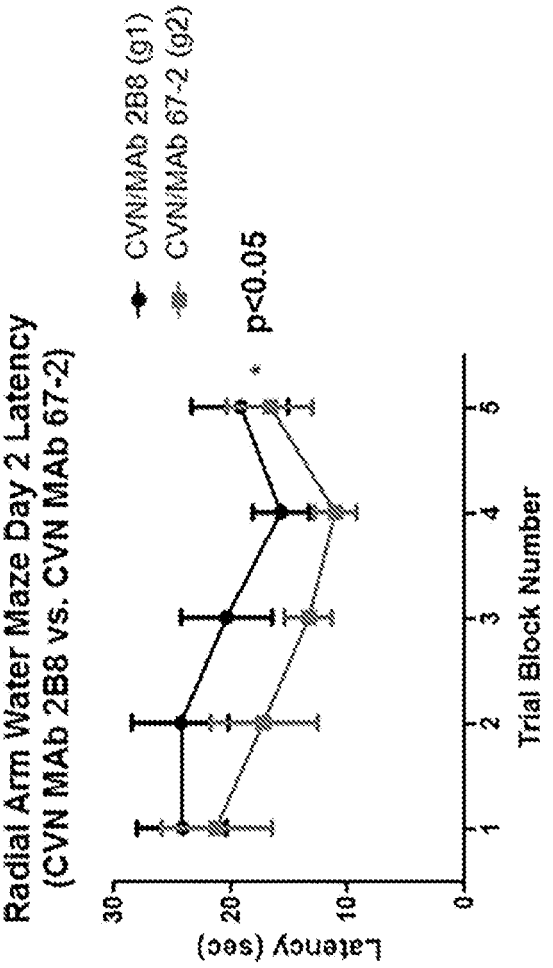
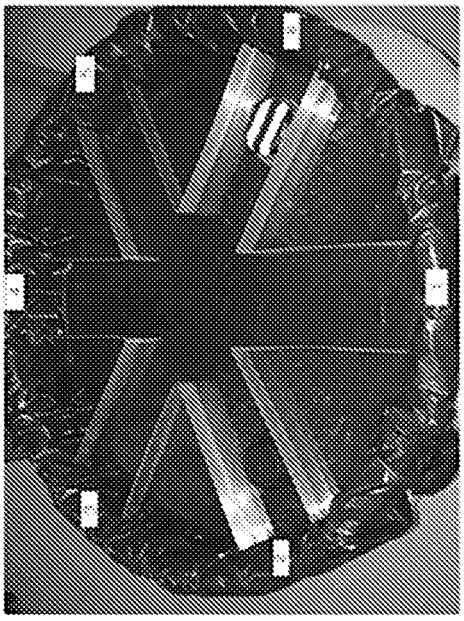


FIG. 3B



Alamed et al. *Nat. Protocols*, 2006

FIG. 3A

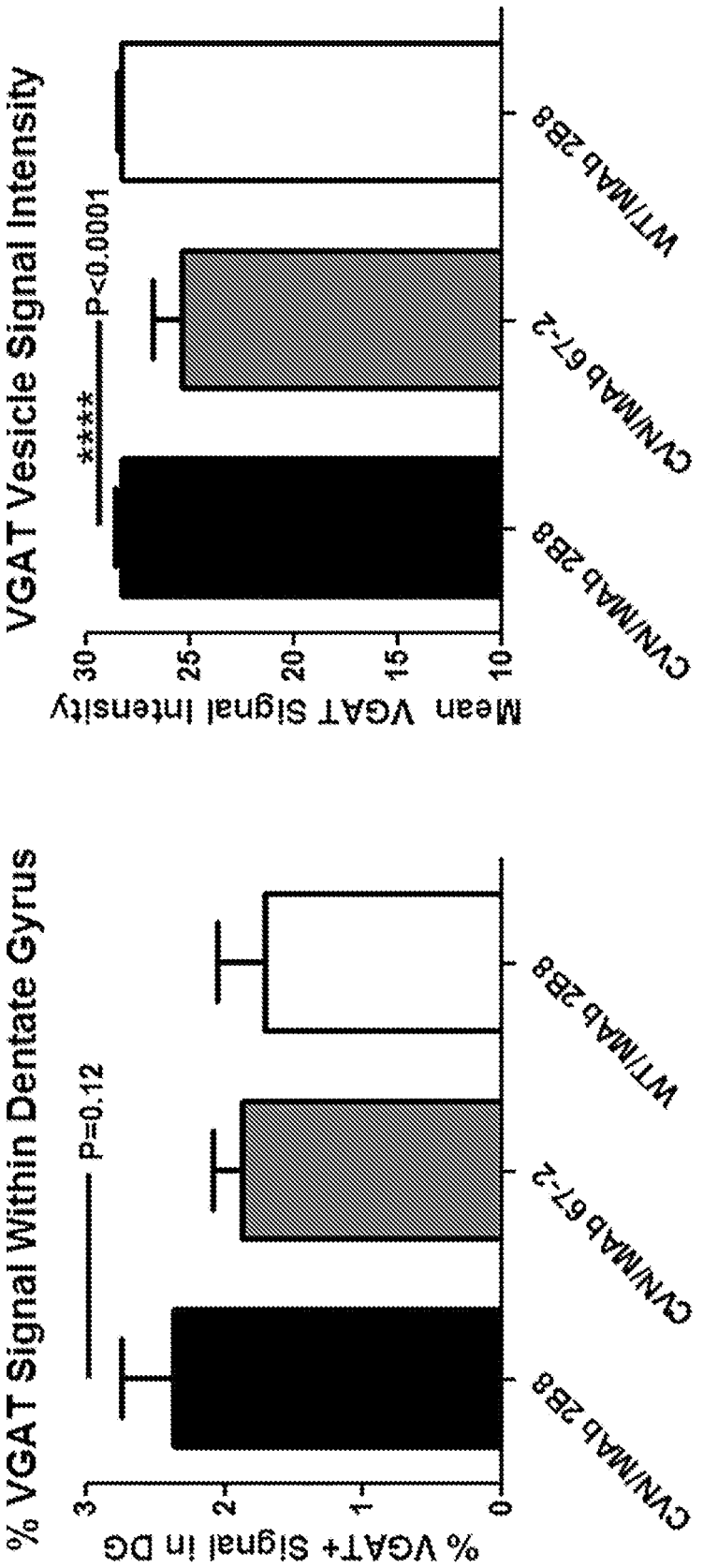

VGAT Vesicle Signal Intensity
****
P<0.0001
Mean VGAT Signal Intensity
30
25
20
15
10
CV/MAb 2B8
CV/MAb 67-2
WT/MAb 2B8
% VGAT Signal Within Dentate Gyrus
P=0.12
% VGAT+ Signal in DG
3
2
1
0
CV/MAb 2B8
CV/MAb 67-2
WT/MAb 2B8

FIG. 4

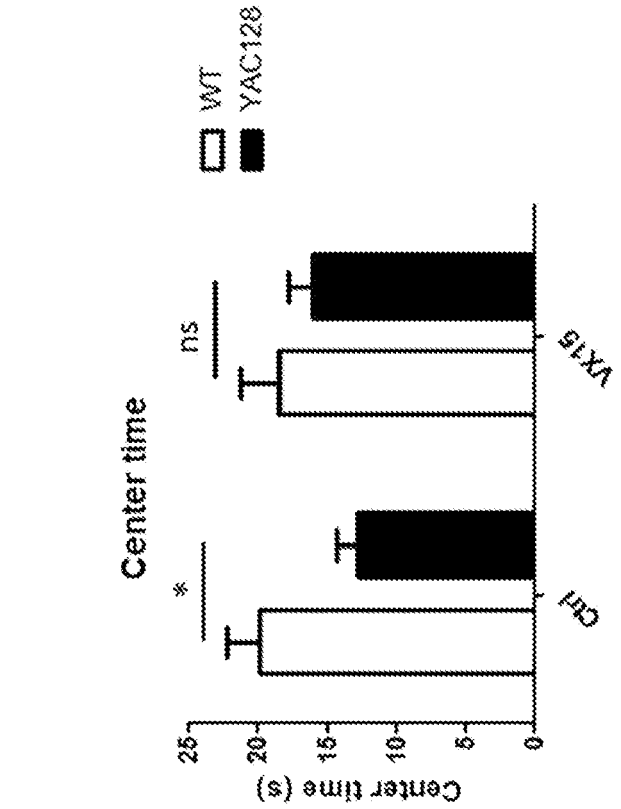

WT
YAC128
Center time
ns
*
Center time (s)
25
20
15
10
5
0
CBI
YX15

FIG. 5B

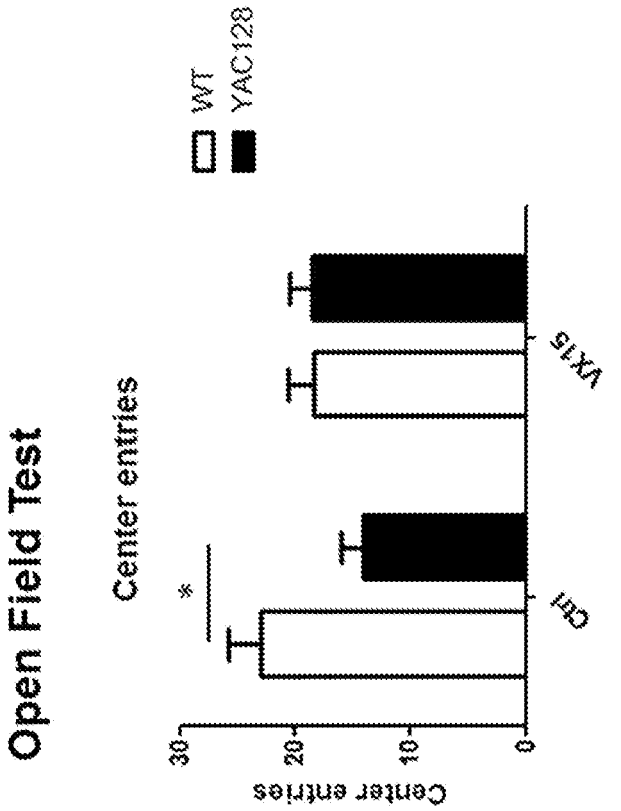

Open Field Test
WT
YAC128
Center entries
*
Center entries
30
20
10
0
CBI
YX15

FIG. 5A

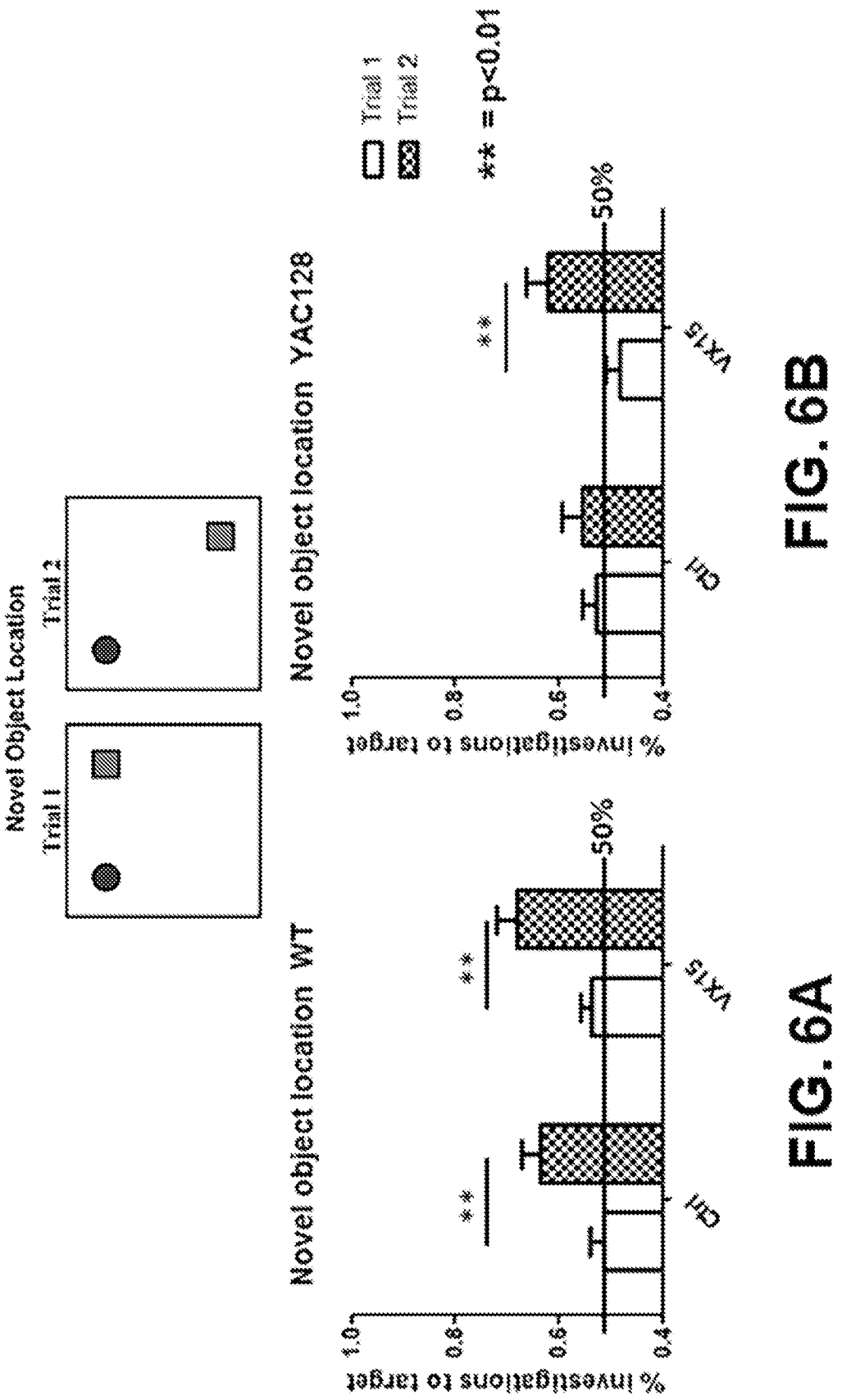

Novel Object Location
Trial 1
Trial 2
Novel object location WT
Novel object location YAC128
Trial 1
Trial 2
** = p<0.01
% investigations to target
1.0
0.8
0.6
0.4
50%
**
Cdi
VX15

FIG. 6A

FIG. 6B

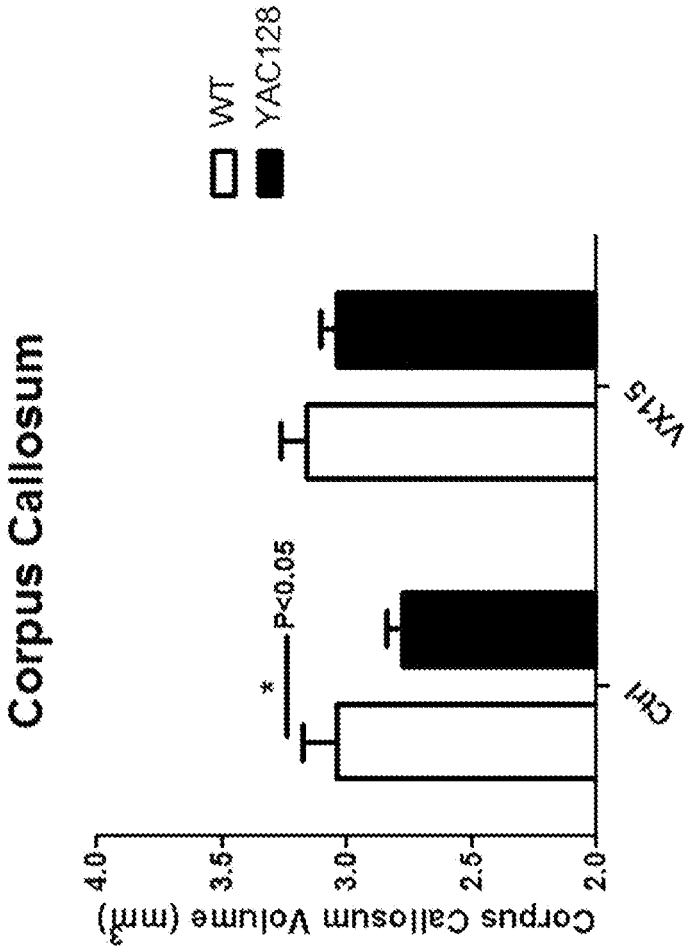

Corpus Callosum
WT
YAC128
Corpus Callosum Volume (mm³)
4.0
3.5
3.0
2.5
2.0
*
P<0.05
CWI
VX15

FIG. 7B

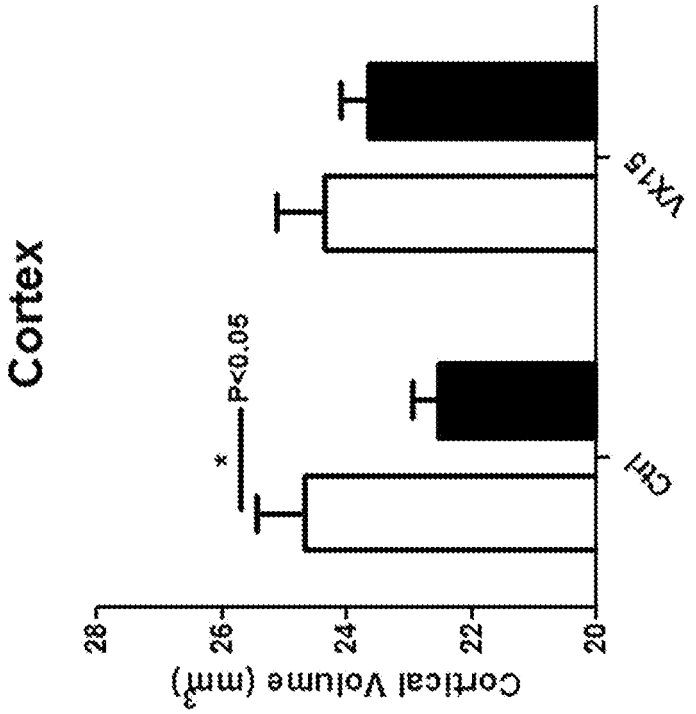

Cortex
Cortical Volume (mm³)
28
26
24
22
20
*
P<0.05
CWI
VX15

FIG. 7A

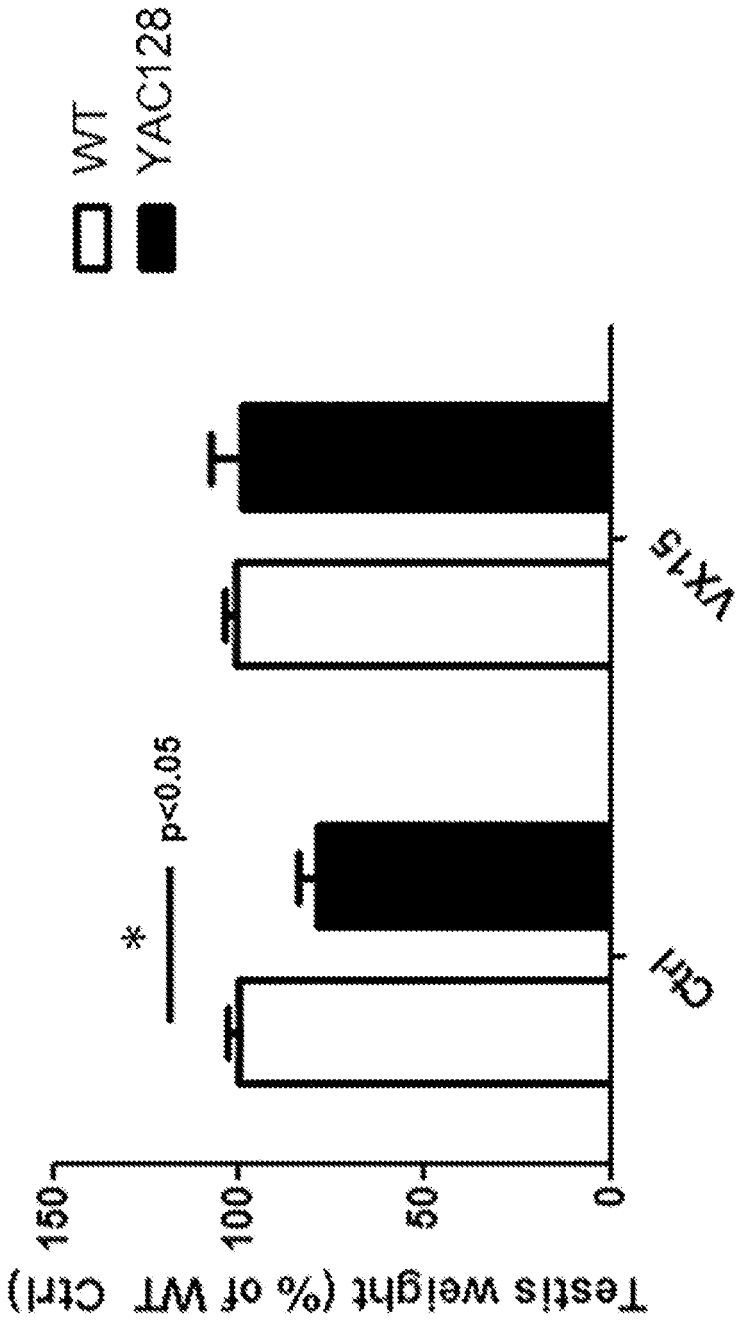


FIG. 8

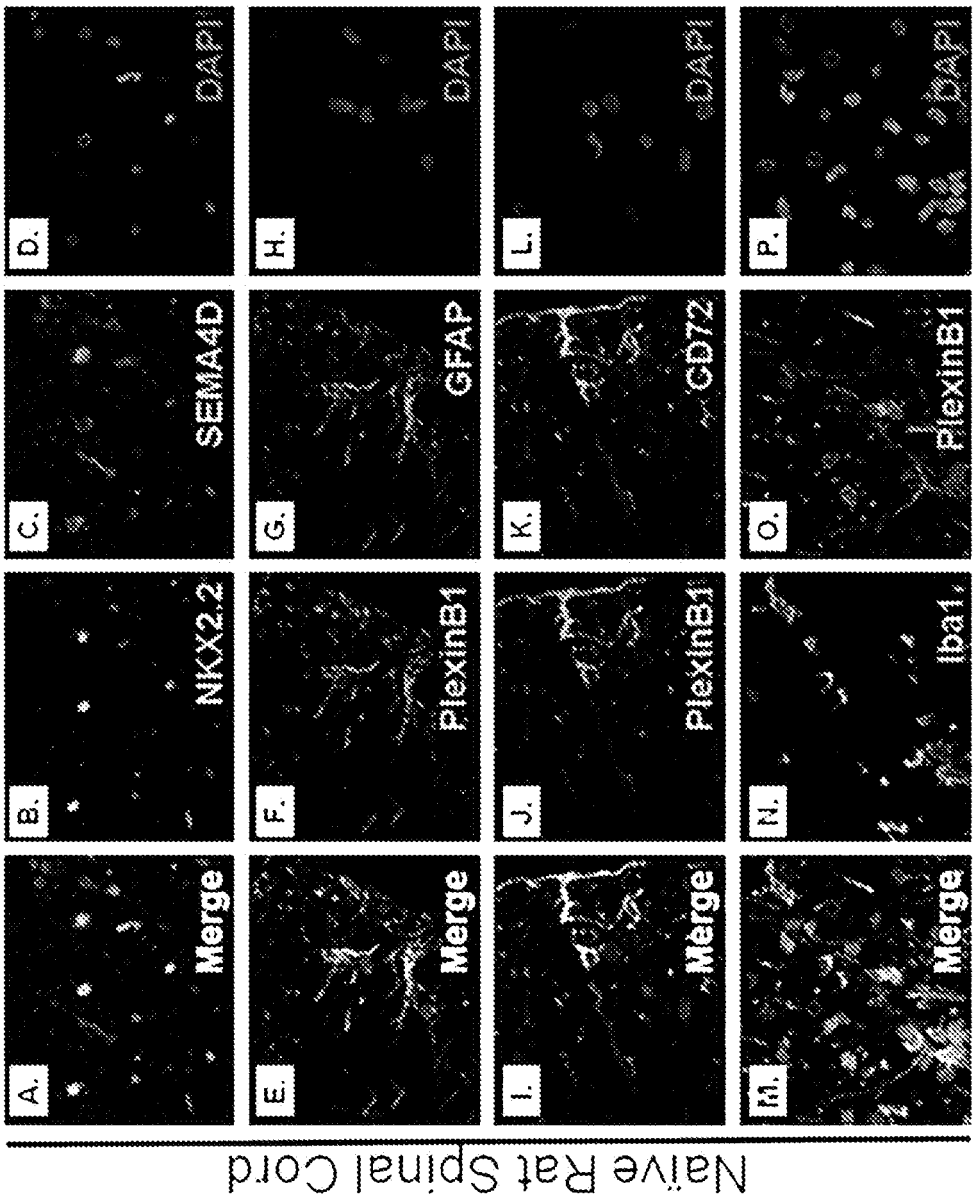


FIG. 9A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P

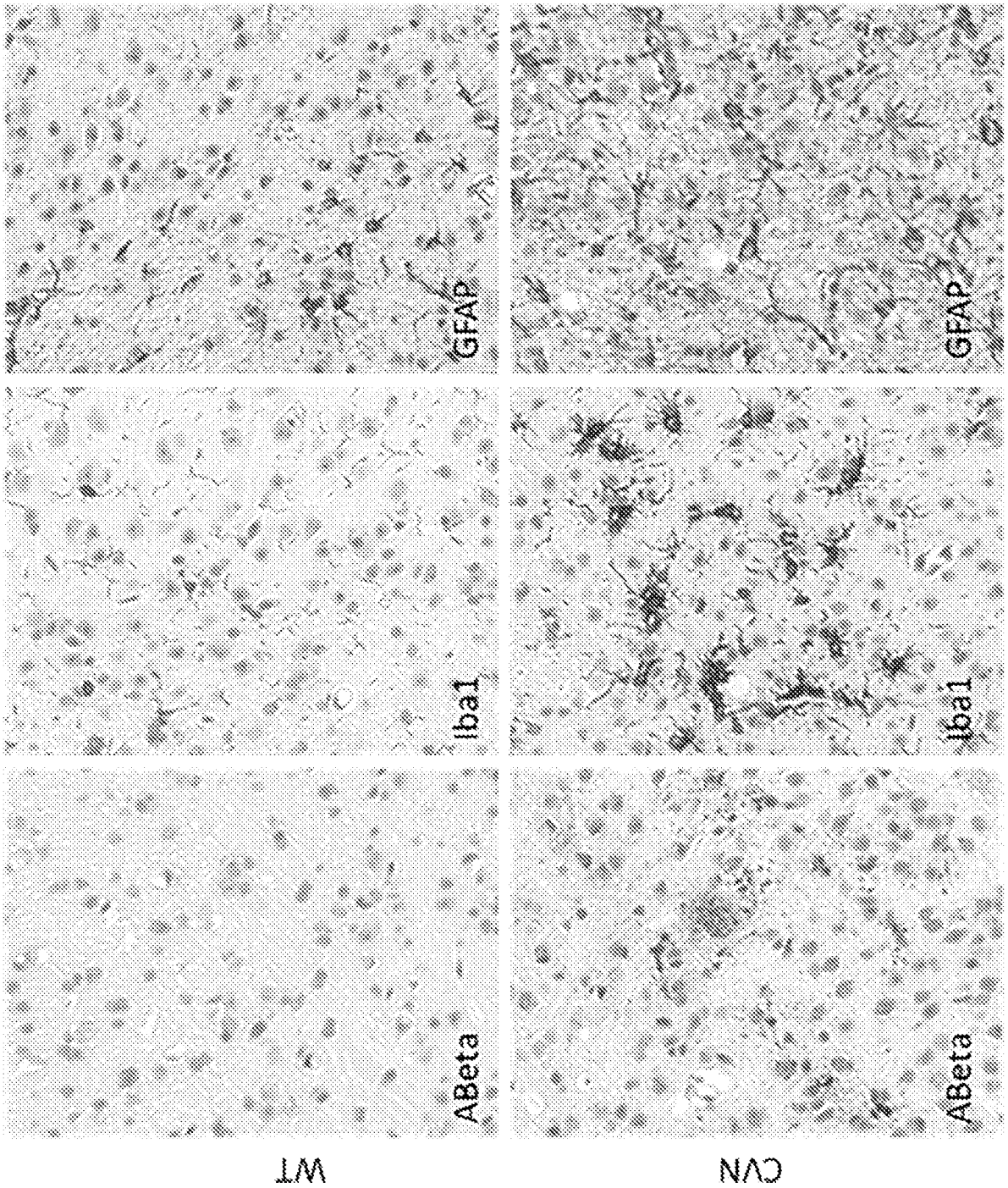


FIG. 10

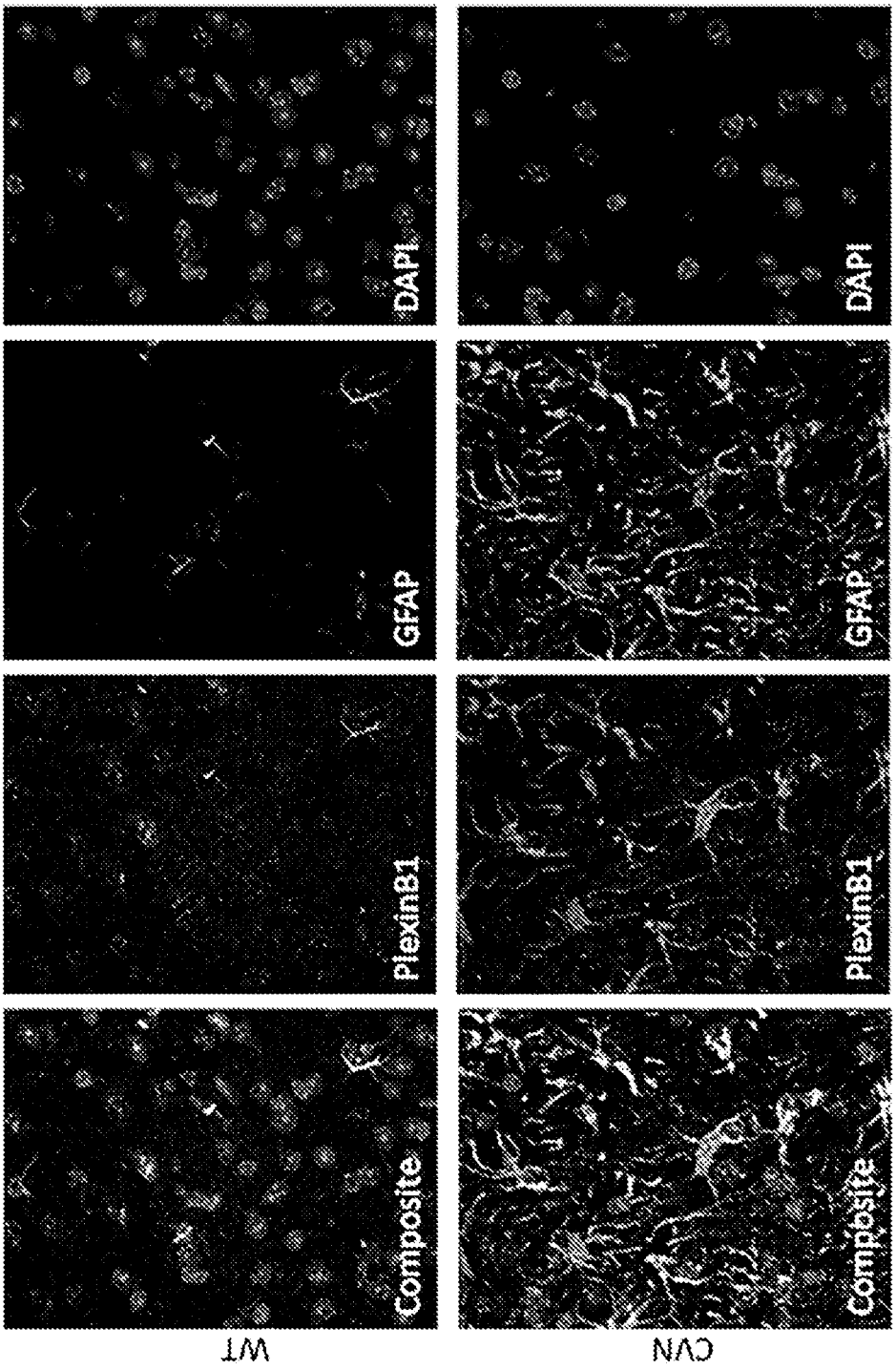

DAPI
GFAP
PlexinB1
Composite
DAPI
GFAP
PlexinB1
Composite
WT
CVN

FIG. 11A

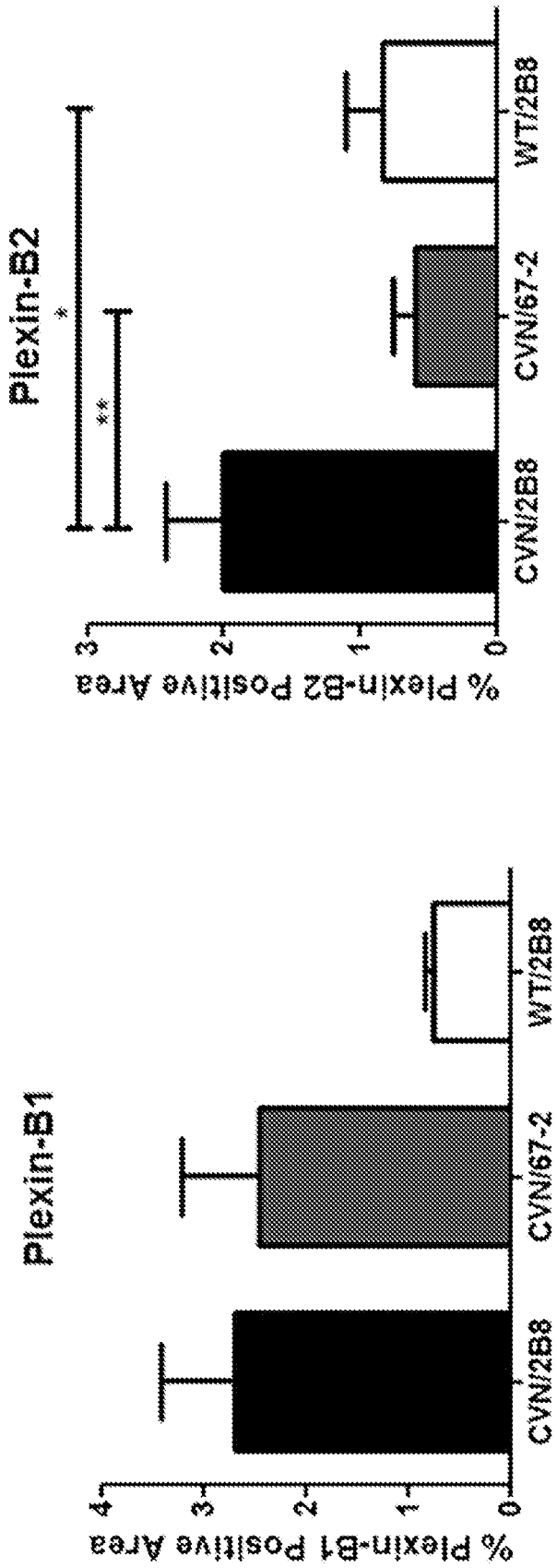

Plexin-B2
*
**
% Plexin-B2 Positive Area
0
1
2
3
CVN/2B8
CVN/67-2
WT/2B8
Plexin-B1
% Plexin-B1 Positive Area
0
1
2
3
4
CVN/2B8
CVN/67-2
WT/2B8

FIG. 11B

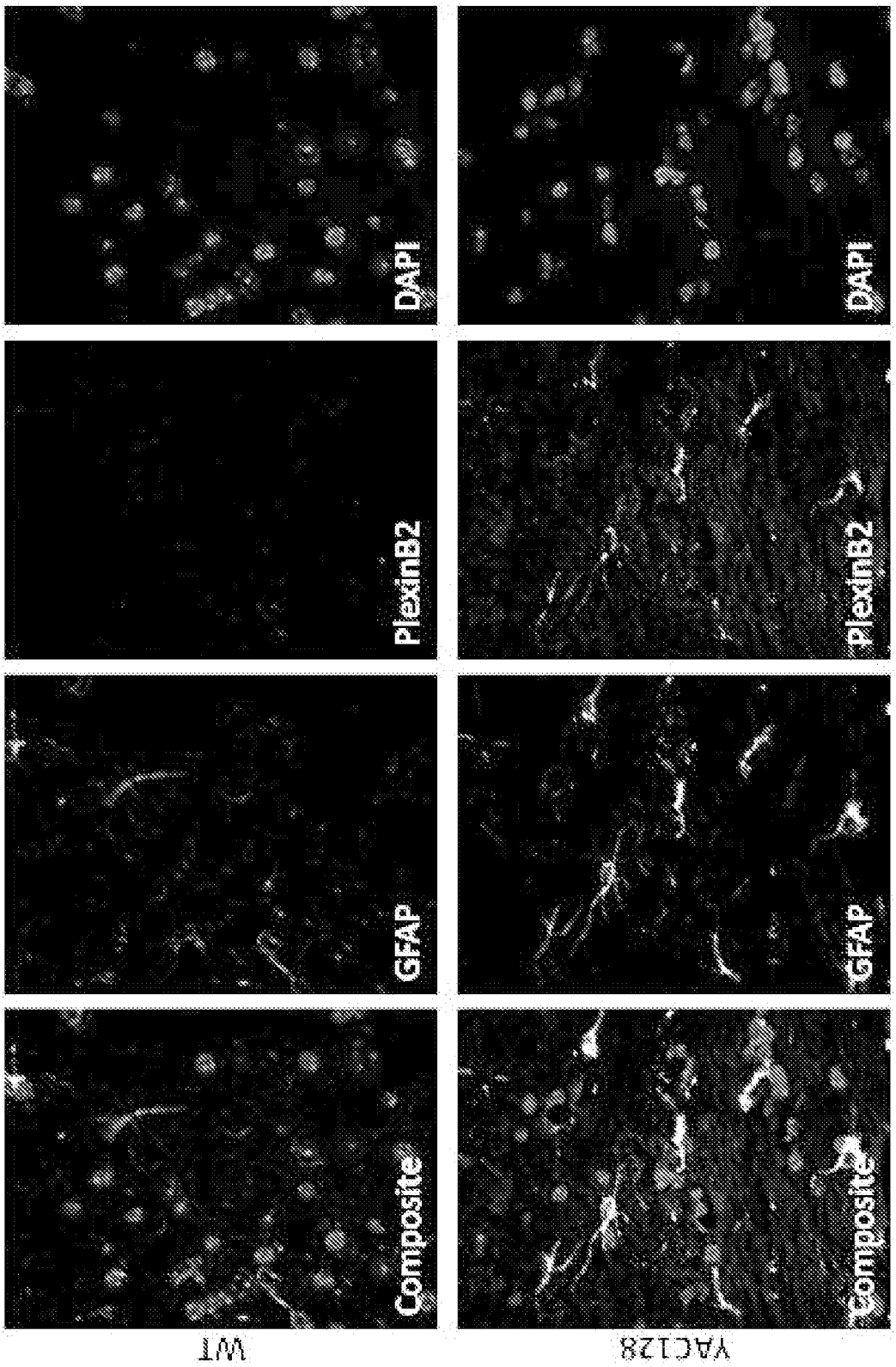

DAPI
PlexinB2
GFAP
Composite
DAPI
PlexinB2
GFAP
Composite
WT
YAC128

FIG. 12

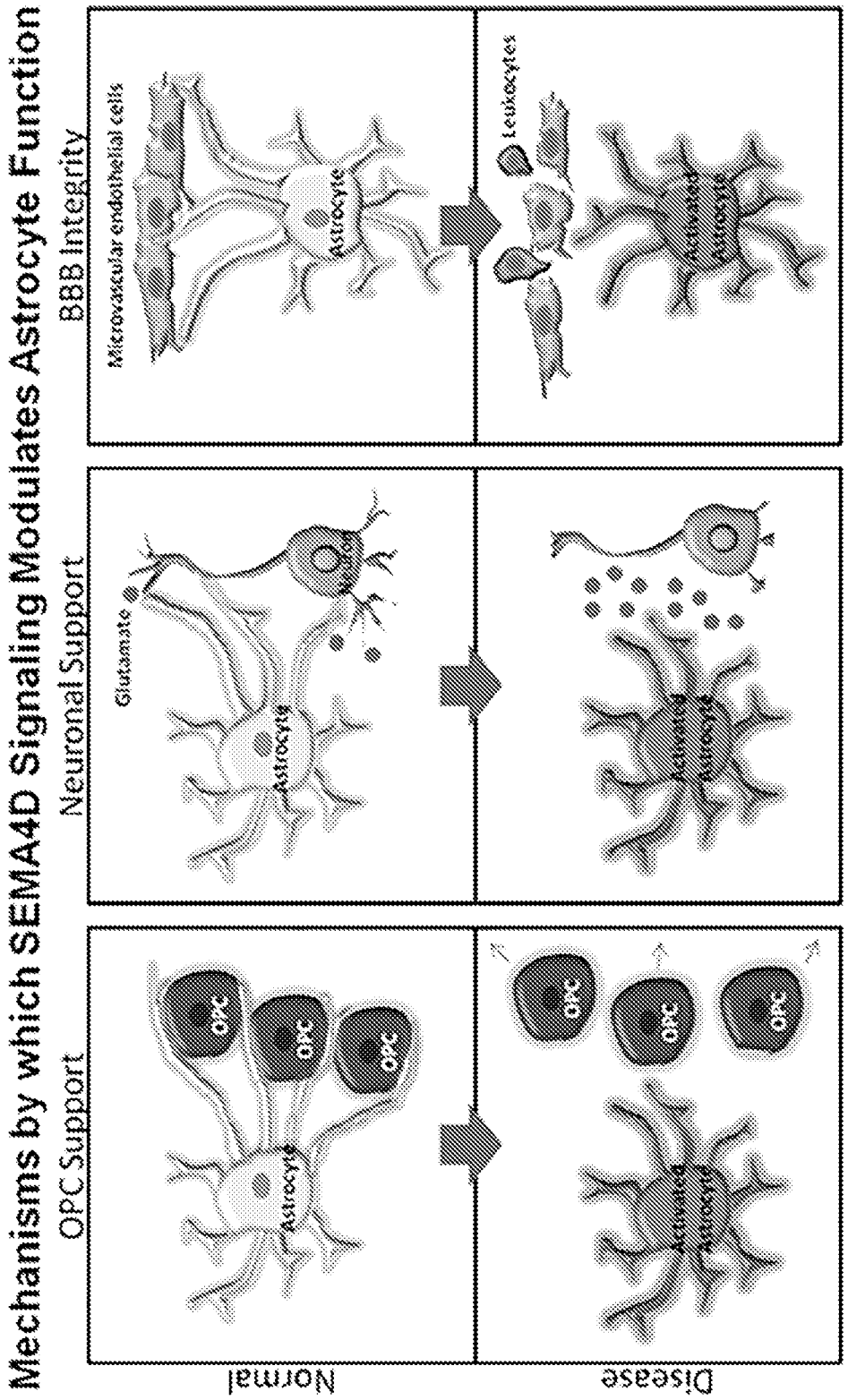

Mechanisms by which SEMA4D Signaling Modulates Astrocyte Function
OPC Support
Neuronal Support
BBB Integrity
Normal
Disease
OPC
Astrocyte
Glutamate
Activated Astrocyte
Microvascular endothelial cells
Leukocytes

FIG. 13

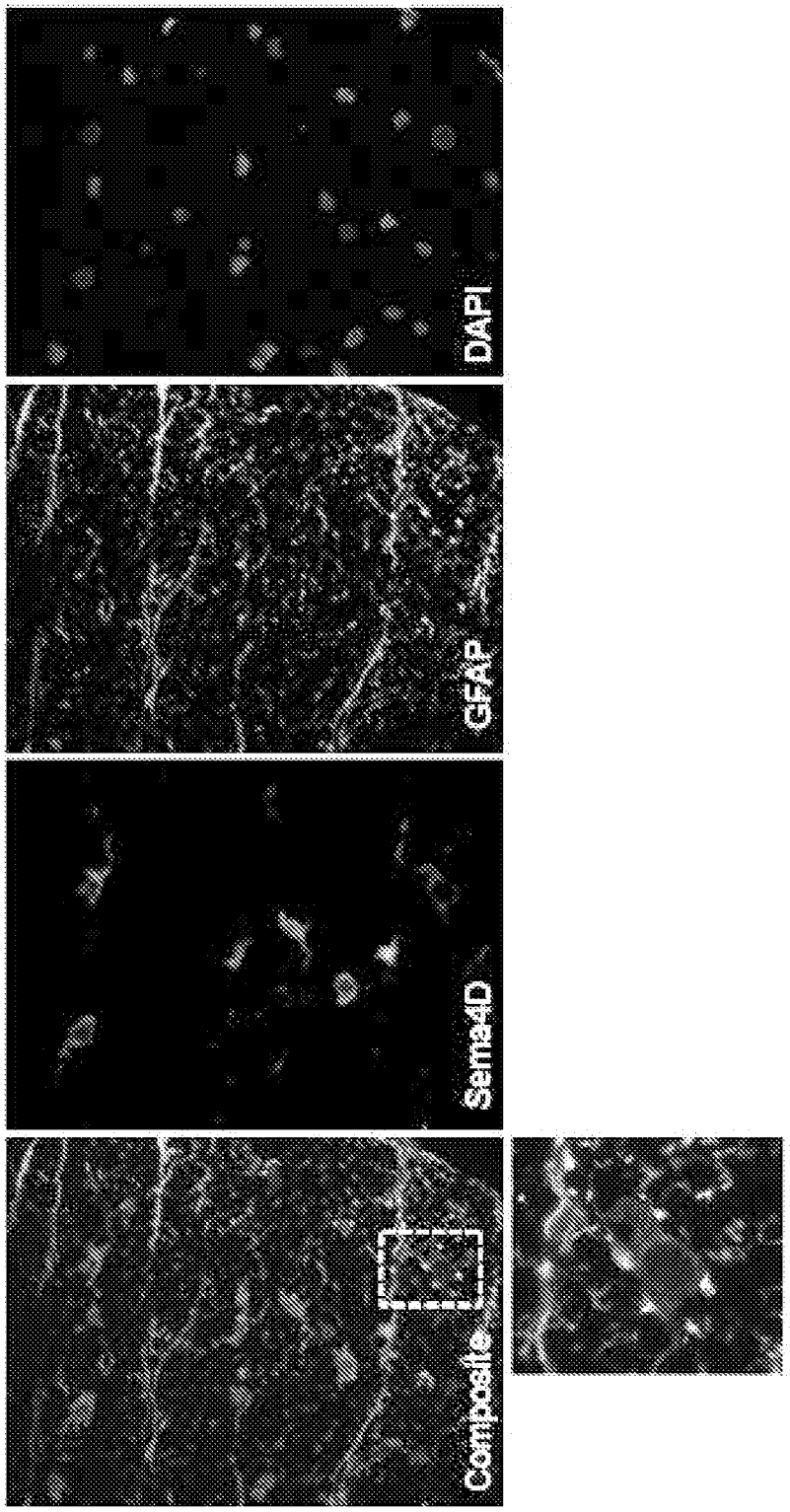


FIG. 14

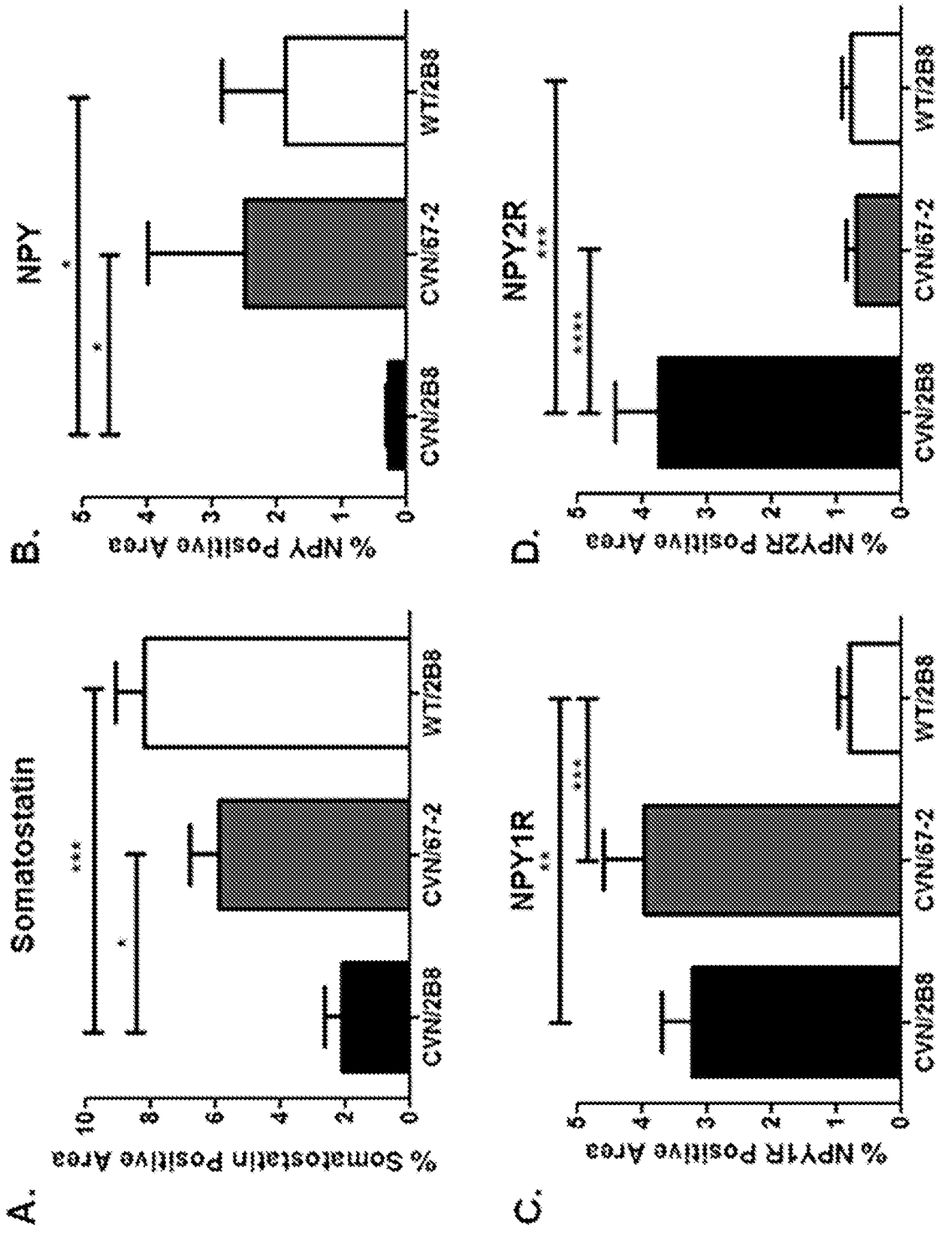

A.
Somatostatin
% Somatostatin Positive Area
CVN/2B8
CVN/67-2
WT/2B8
B.
NPY
% NPY Positive Area
C.
NPY1R
% NPY1R Positive Area
D.
NPY2R
% NPY2R Positive Area

FIG. 15A, B, C, D

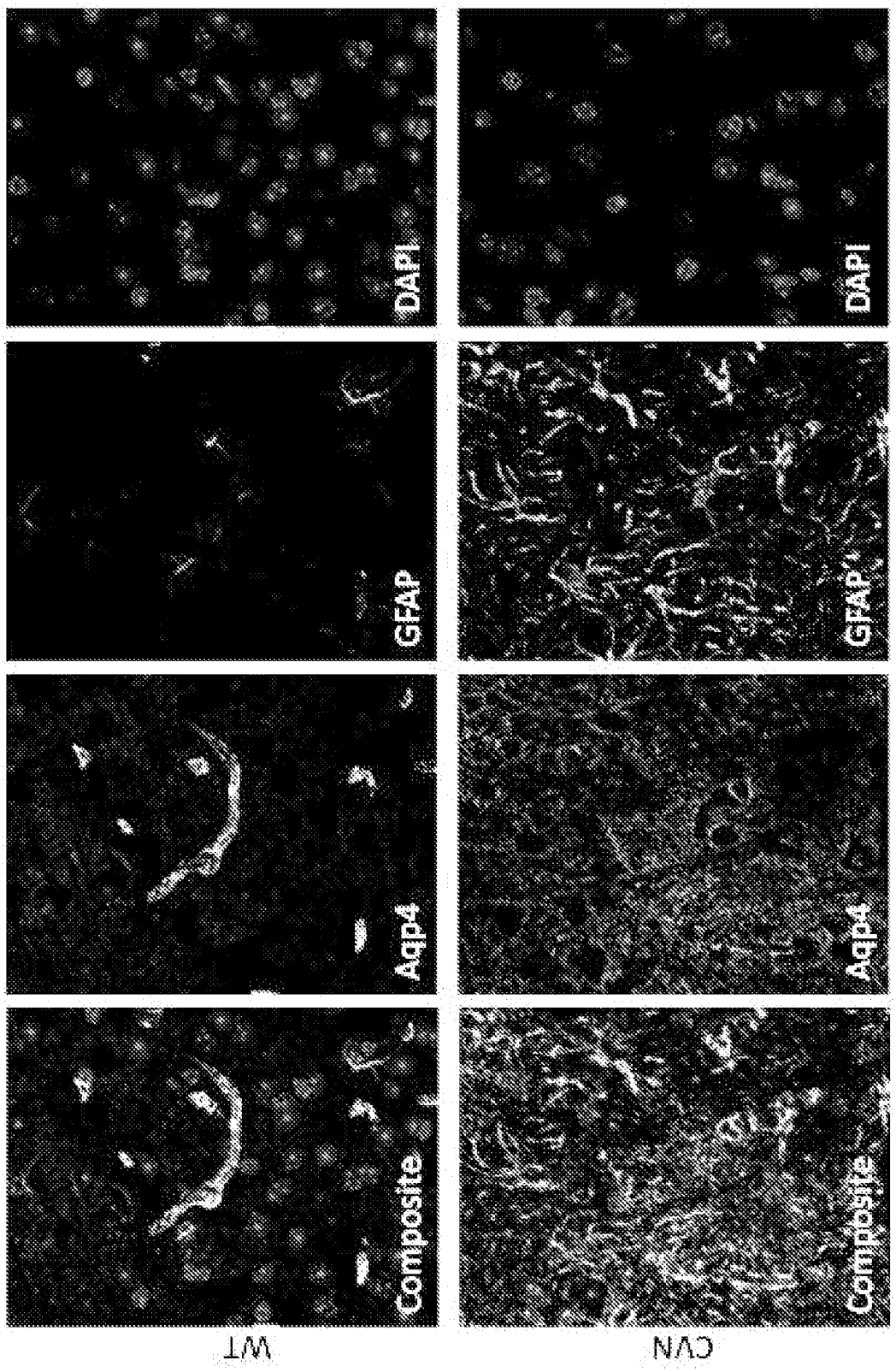


FIG. 16

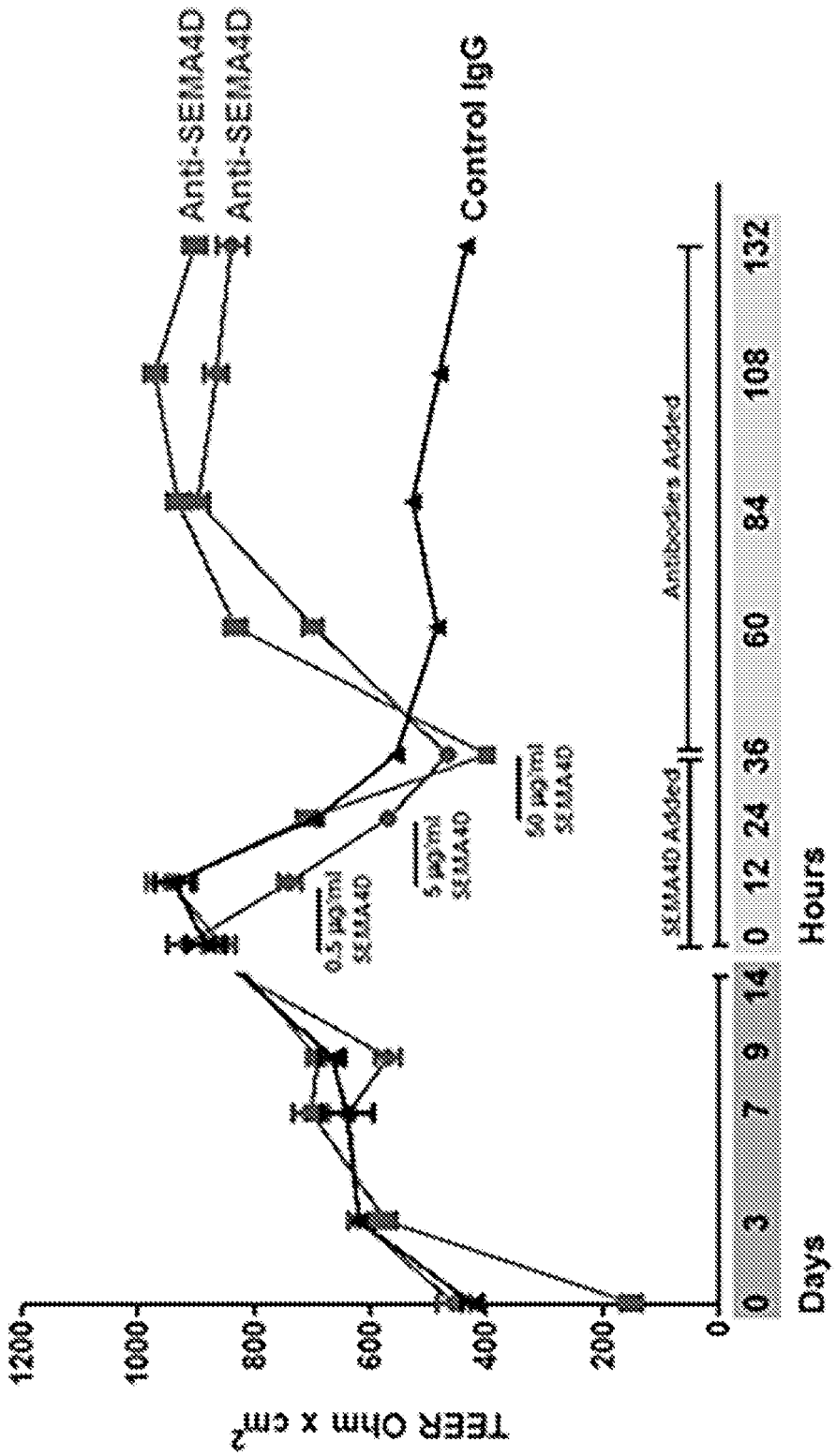

TEER Ohm x cm²
1200
1000
800
600
400
200
0
Anti-SEMA4D
Anti-SEMA4D
Control IgG
0.5 µg/ml SEMA4D
5 µg/ml SEMA4D
50 µg/ml SEMA4D
SEMA4D Added
Antibodies Added
Days
0 3 7 9 14
Hours
0 12 24 36 60 84 108 132

FIG. 17

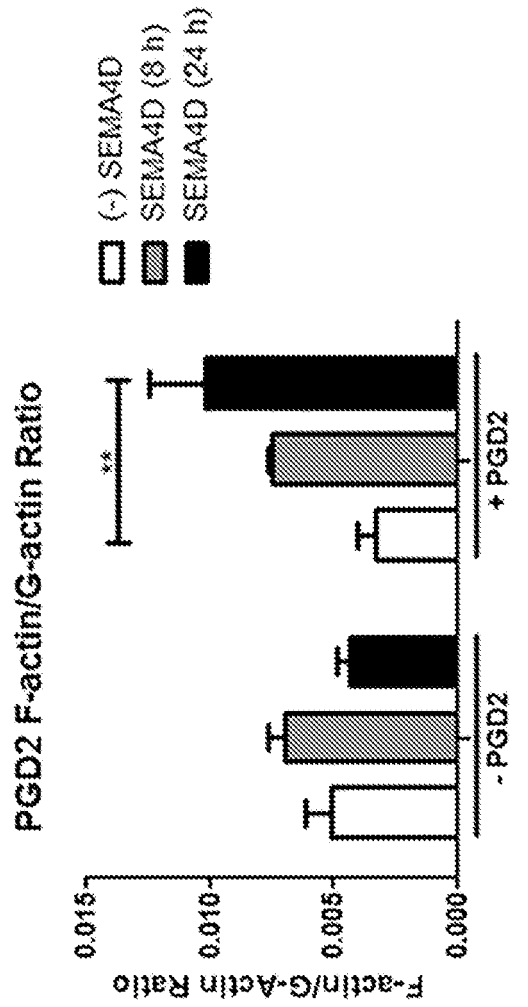


FIG. 18B

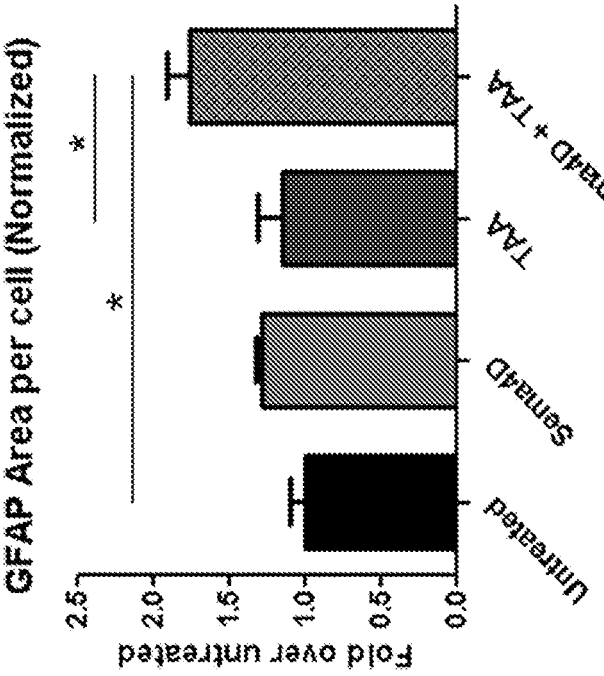


FIG. 18A