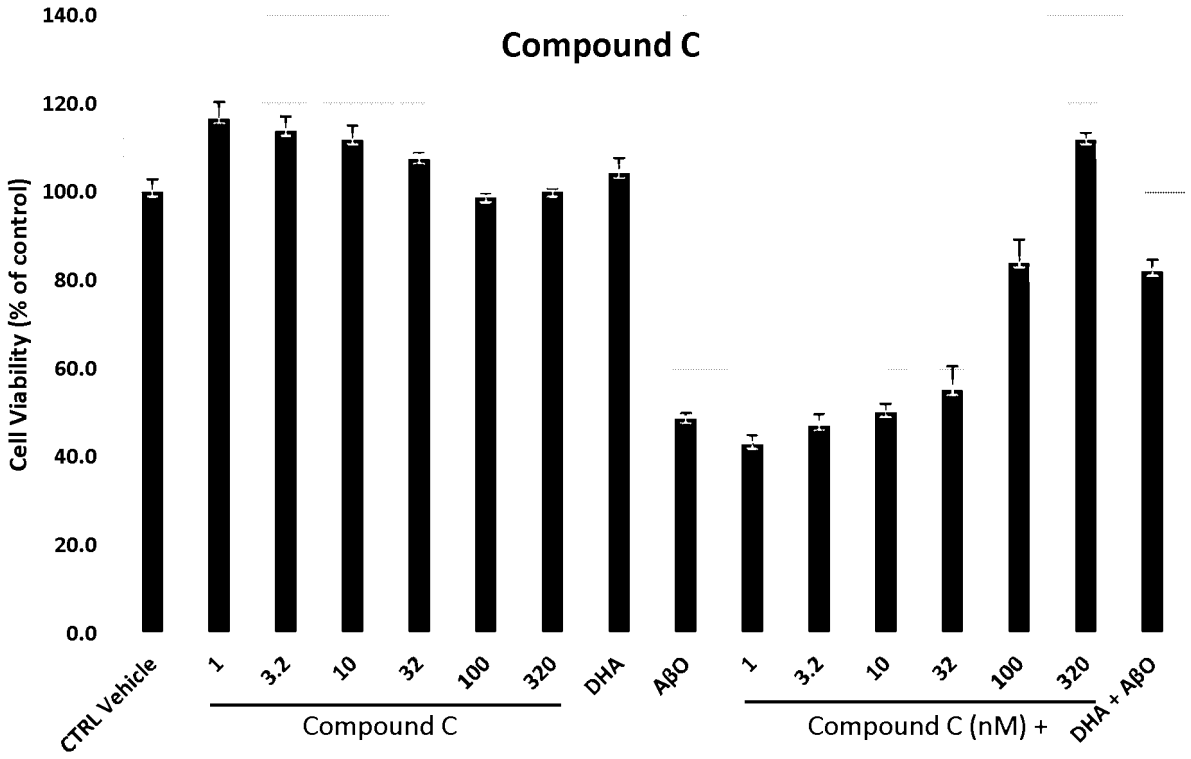
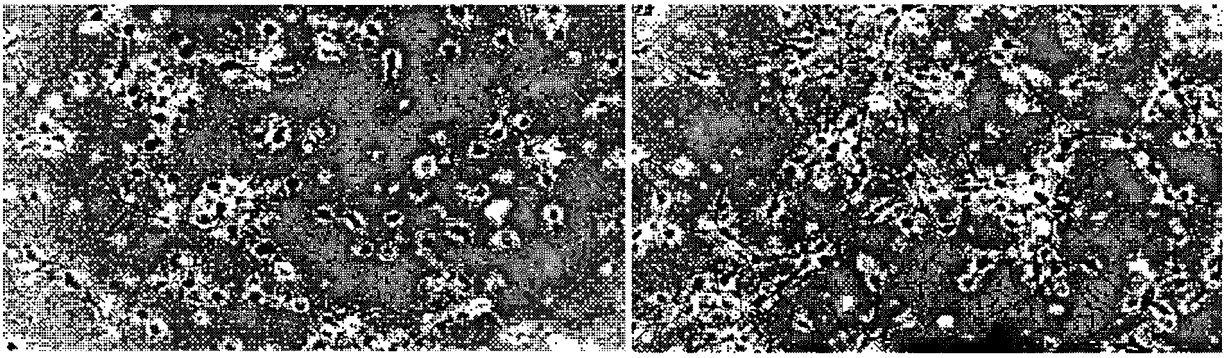


FIG.1



Left: AβO control; Right: compound C at 320nM added at 48 hours before adding AβO

FIG.2

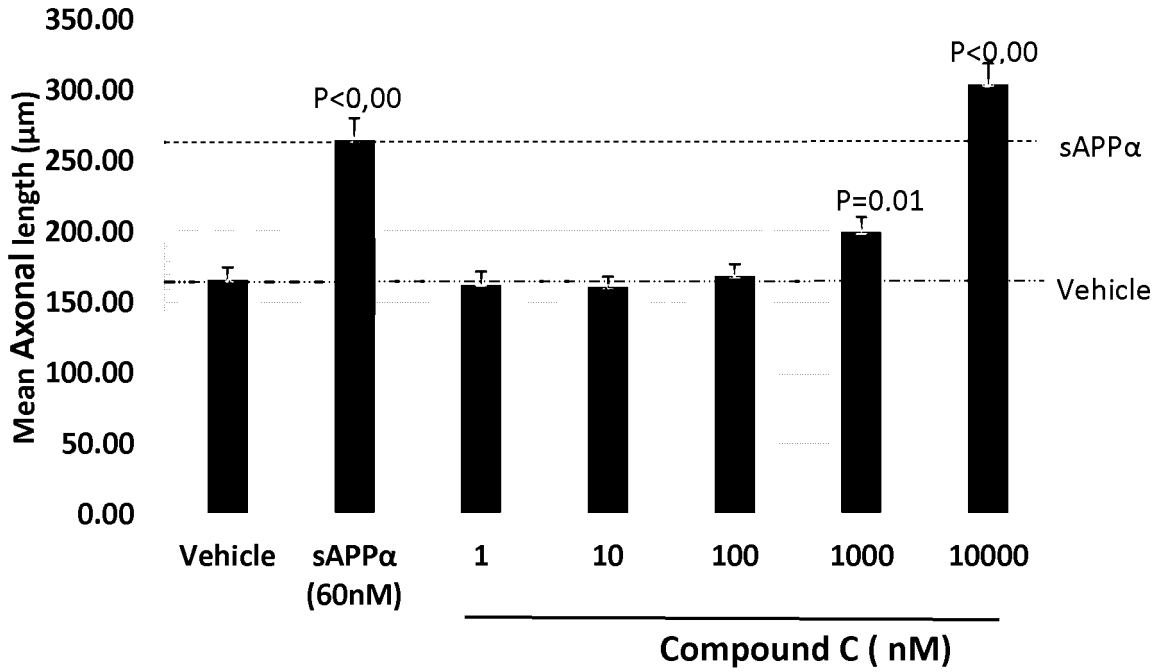

350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
Mean Axonal length (μm)
P<0,00
P<0,00
P=0.01
sAPPα
Vehicle
Vehicle
sAPPα (60nM)
1
10
100
1000
10000
Compound C (nM)

FIG.3

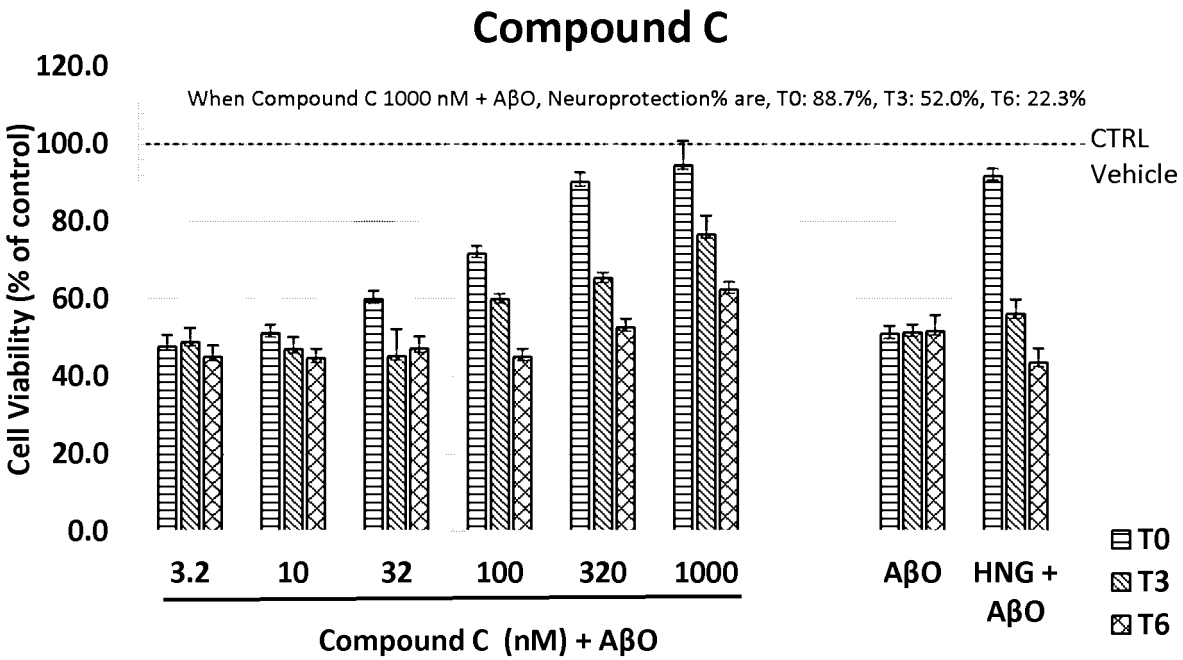

Compound C
When Compound C 1000 nM + AβO, Neuroprotection% are, T0: 88.7%, T3: 52.0%, T6: 22.3%
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Cell Viability (% of control)
CTRL
Vehicle
3.2
10
32
100
320
1000
AβO
HNG + AβO
Compound C (nM) + AβO
T0
T3
T6

FIG.4

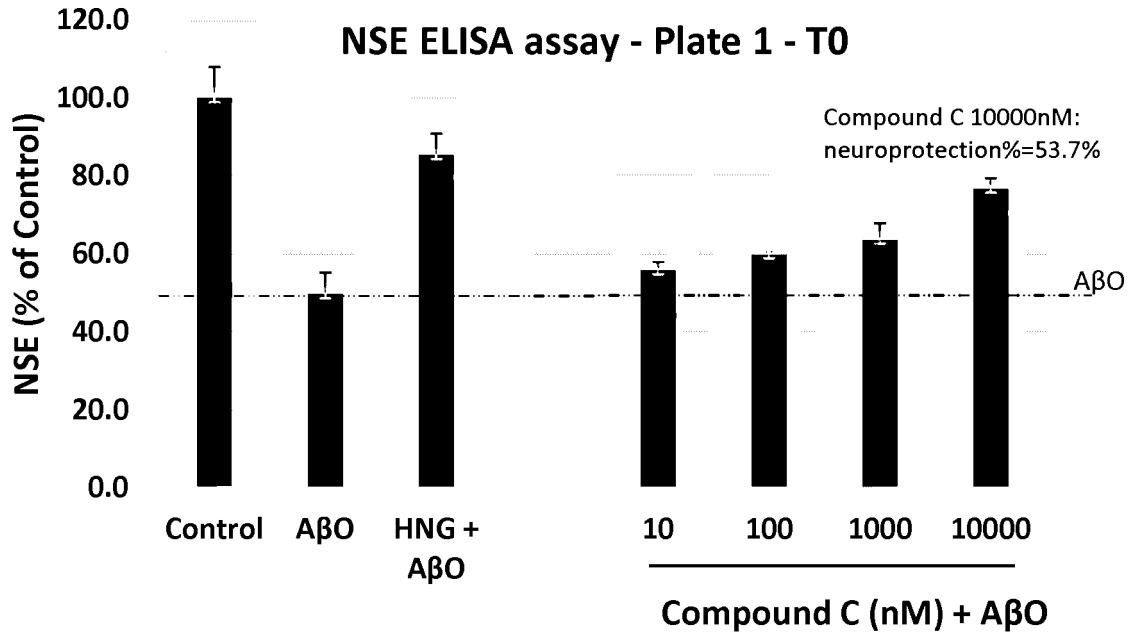

NSE ELISA assay - Plate 1 - T0
Compound C 10000nM:
neuroprotection%=53.7%
NSE (% of Control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
AβO
Control
AβO
HNG + AβO
10
100
1000
10000
Compound C (nM) + AβO

FIG.5a

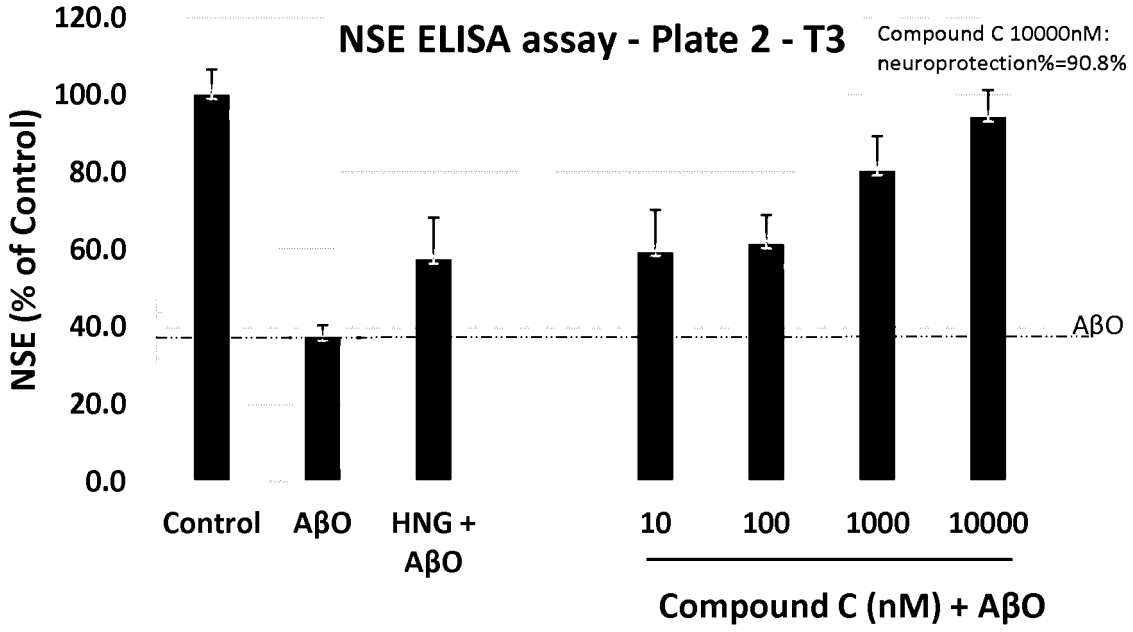

NSE ELISA assay - Plate 2 - T3
Compound C 10000nM:
neuroprotection%=90.8%
NSE (% of Control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
AβO
Control
AβO
HNG + AβO
10
100
1000
10000
Compound C (nM) + AβO

FIG.5b

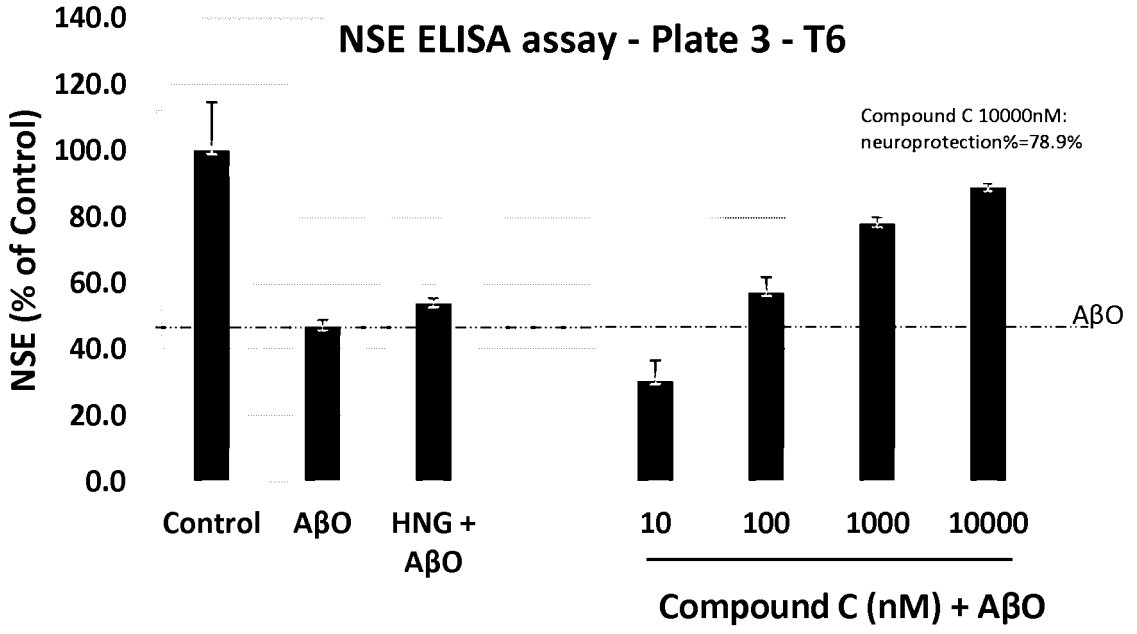

NSE ELISA assay - Plate 3 - T6
NSE (% of Control)
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Compound C 10000nM:
neuroprotection%=78.9%
AβO
Control
AβO
HNG + AβO
10
100
1000
10000
Compound C (nM) + AβO

FIG.5c

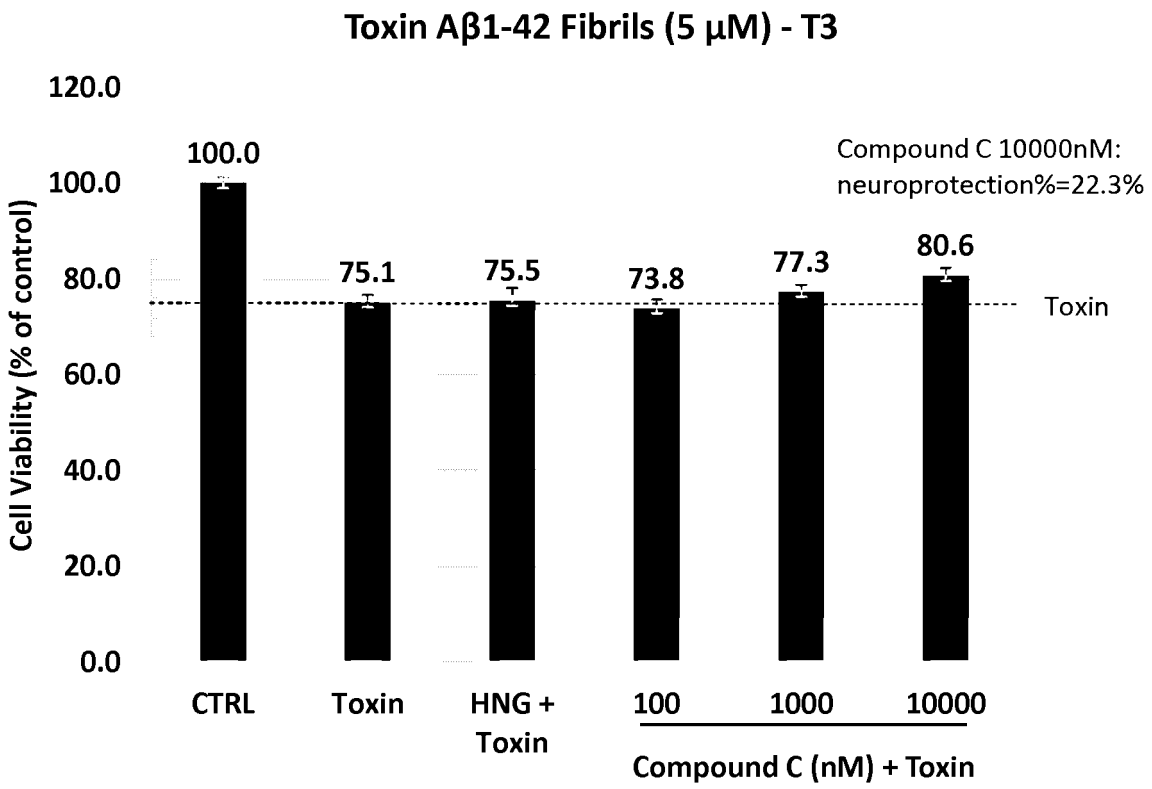

Toxin Aβ1-42 Fibrils (5 μM) - T3
Cell Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
100.0
75.1
75.5
73.8
77.3
80.6
Compound C 10000nM:
neuroprotection%=22.3%
Toxin
CTRL
Toxin
HNG + Toxin
100
1000
10000
Compound C (nM) + Toxin

FIG.6a

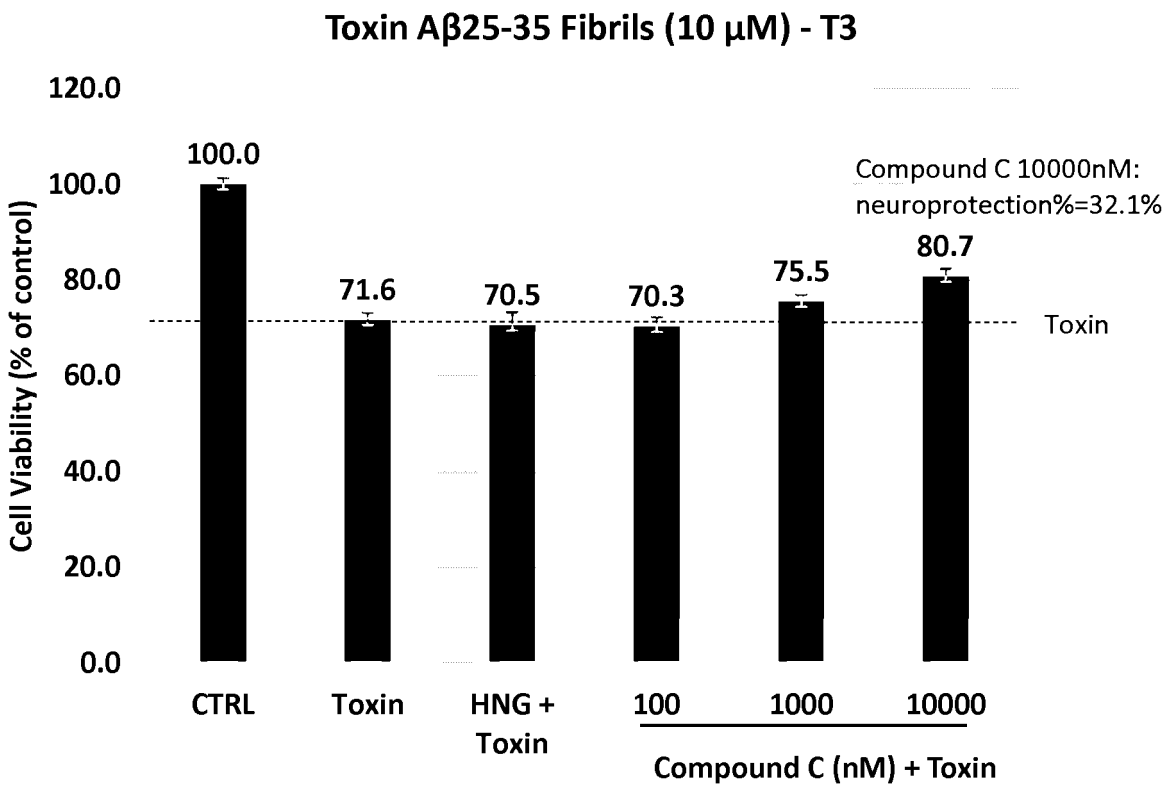

Toxin Aβ25-35 Fibrils (10 μM) - T3
Cell Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
100.0
71.6
70.5
70.3
75.5
80.7
Compound C 10000nM:
neuroprotection%=32.1%
Toxin
CTRL
Toxin
HNG + Toxin
100
1000
10000
Compound C (nM) + Toxin

FIG.6b

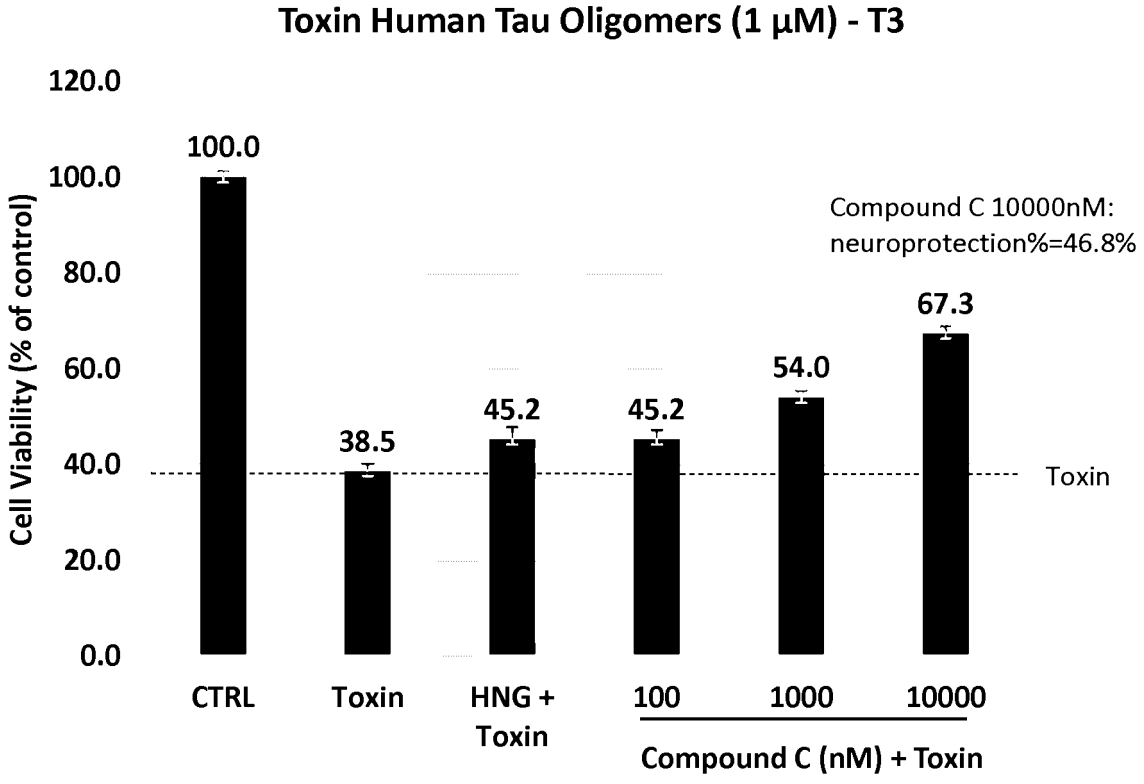

Toxin Human Tau Oligomers (1 μM) - T3
Cell Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
100.0
38.5
45.2
45.2
54.0
67.3
Compound C 10000nM:
neuroprotection%=46.8%
Toxin
CTRL
Toxin
HNG + Toxin
100
1000
10000
Compound C (nM) + Toxin

FIG.6c

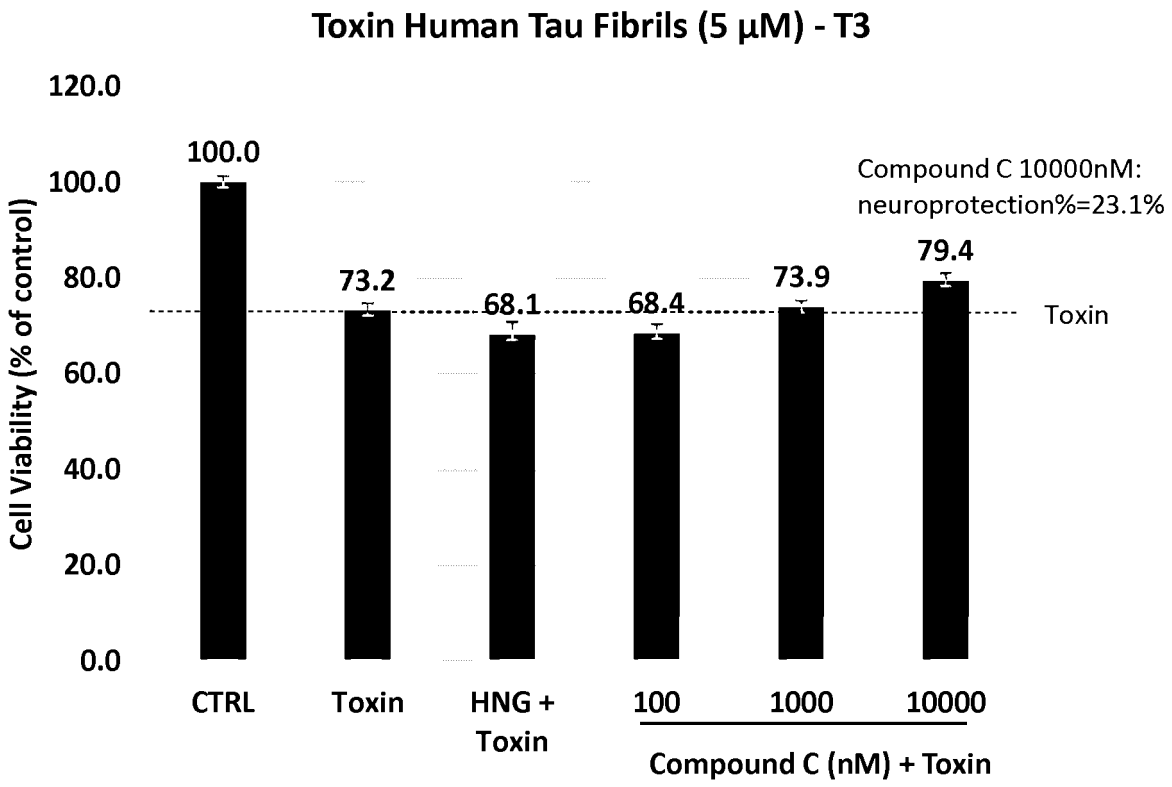

Toxin Human Tau Fibrils (5 μM) - T3
Cell Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
100.0
73.2
68.1
68.4
73.9
79.4
Compound C 10000nM:
neuroprotection%=23.1%
Toxin
CTRL
Toxin
HNG + Toxin
100
1000
10000
Compound C (nM) + Toxin

FIG.6d

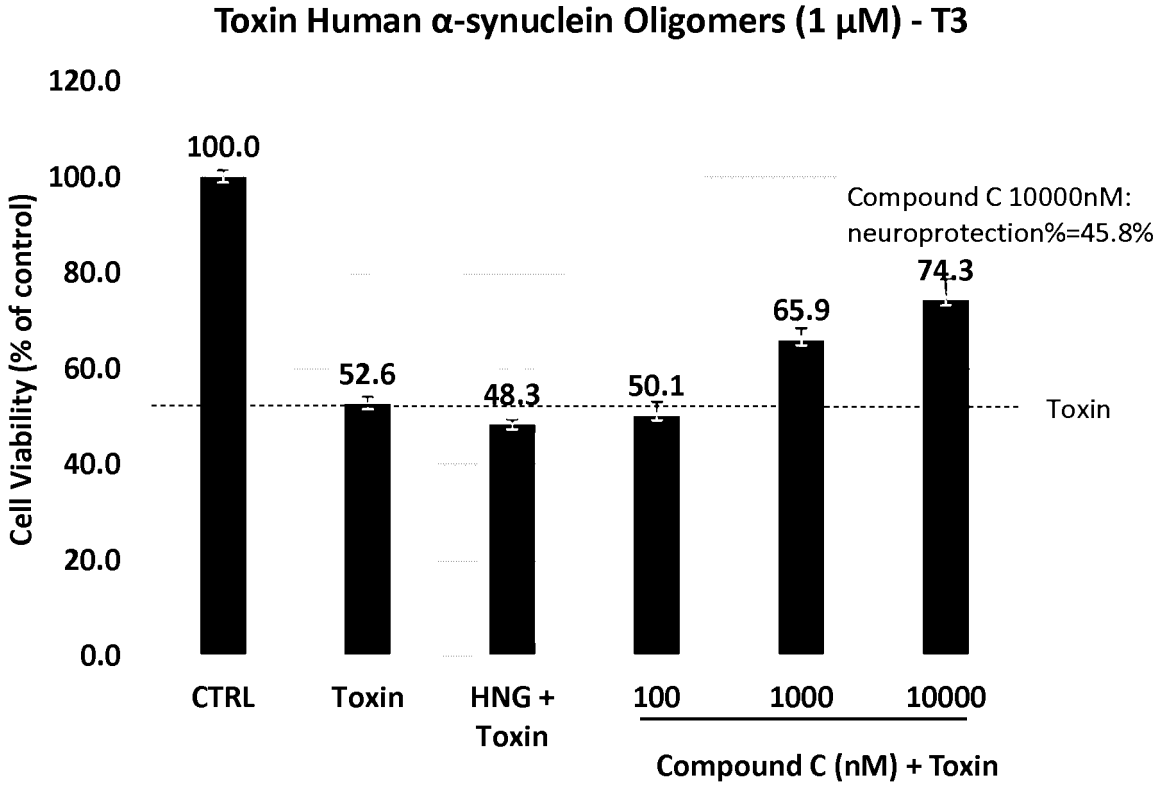

Toxin Human α-synuclein Oligomers (1 μM) - T3
Cell Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
100.0
52.6
48.3
50.1
65.9
74.3
Compound C 10000nM:
neuroprotection%=45.8%
Toxin
CTRL
Toxin
HNG + Toxin
100
1000
10000
Compound C (nM) + Toxin

FIG.6e

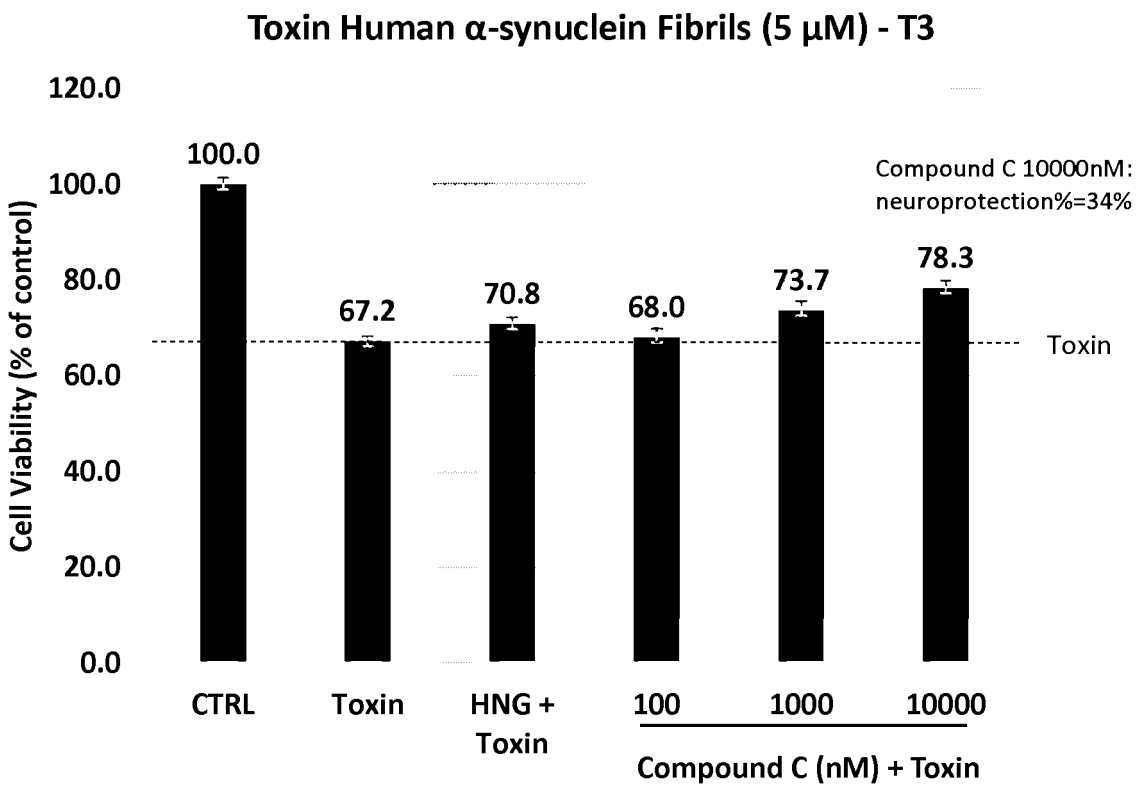

Toxin Human α-synuclein Fibrils (5 μM) - T3
Cell Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
100.0
67.2
70.8
68.0
73.7
78.3
Compound C 10000nM:
neuroprotection%=34%
Toxin
CTRL
Toxin
HNG + Toxin
100
1000
10000
Compound C (nM) + Toxin

FIG.6f

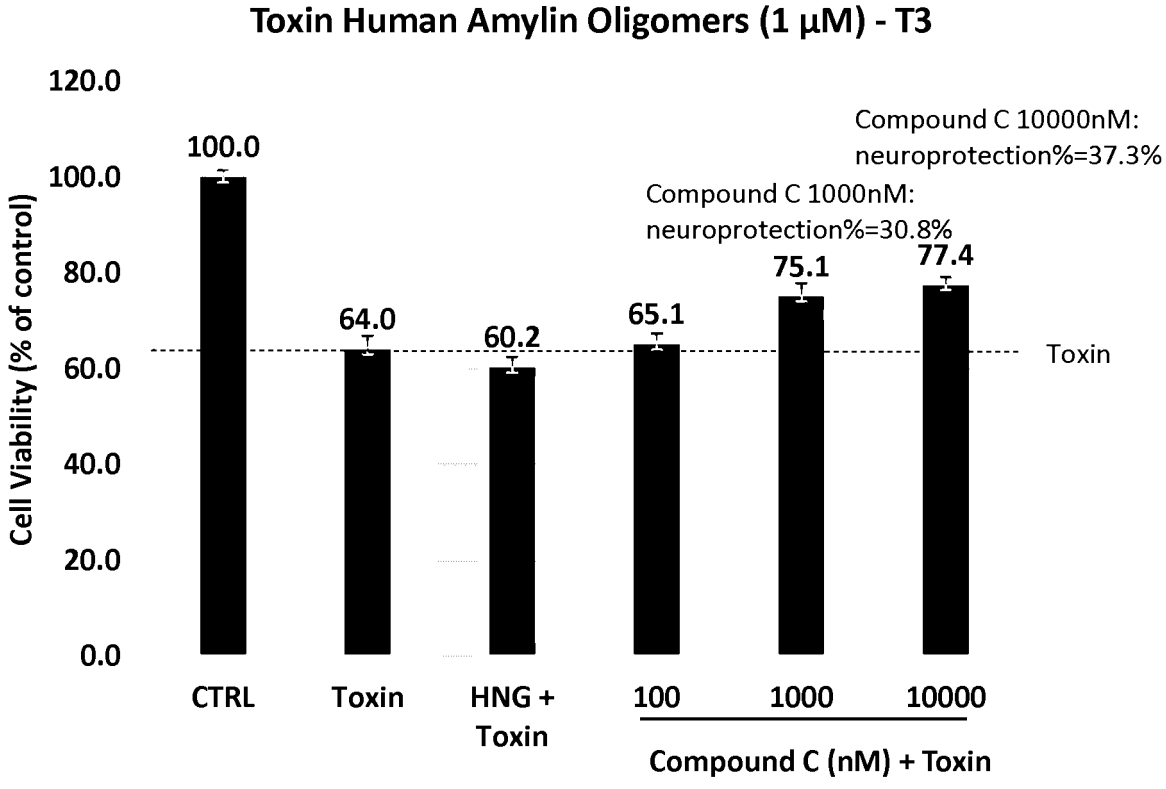

Toxin Human Amylin Oligomers (1 μM) - T3
Cell Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
100.0
64.0
60.2
65.1
75.1
77.4
Compound C 10000nM:
neuroprotection%=37.3%
Compound C 1000nM:
neuroprotection%=30.8%
Toxin
CTRL
Toxin
HNG + Toxin
100
1000
10000
Compound C (nM) + Toxin

FIG.6g

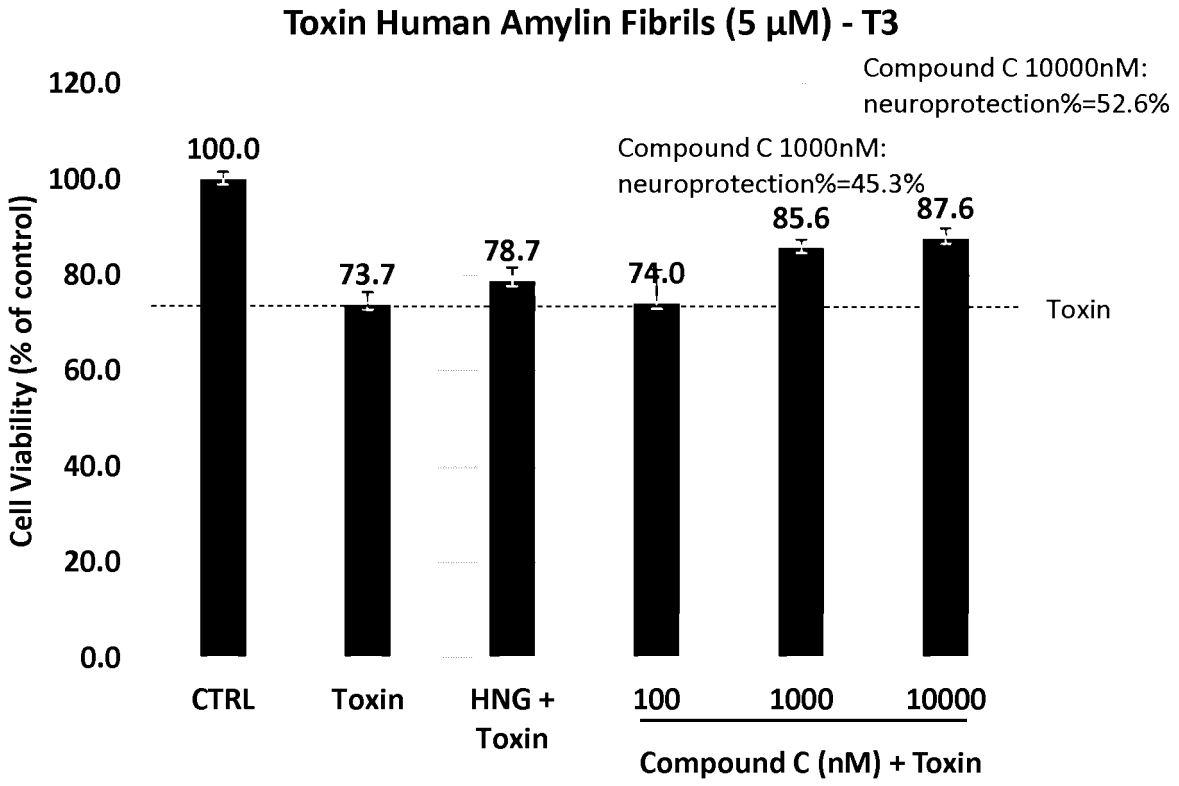

Toxin Human Amylin Fibrils (5 μM) - T3
Compound C 10000nM:
neuroprotection%=52.6%
Compound C 1000nM:
neuroprotection%=45.3%
Cell Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
100.0
73.7
78.7
74.0
85.6
87.6
Toxin
CTRL
Toxin
HNG + Toxin
100
1000
10000
Compound C (nM) + Toxin

FIG.6h

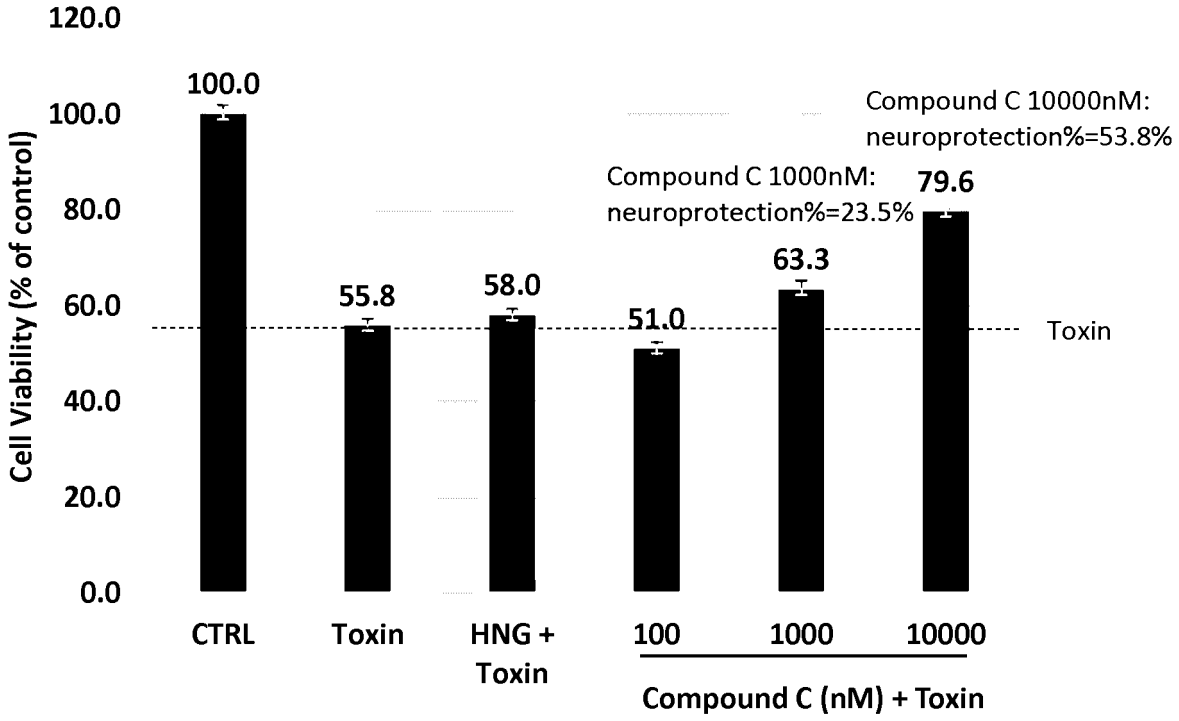

Toxin Prion 118-135 Oligomers (2 μM) - T3
Compound C 10000nM:
neuroprotection%=53.8%
Compound C 1000nM:
neuroprotection%=23.5%
Cell Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
100.0
55.8
58.0
51.0
63.3
79.6
Toxin
CTRL
Toxin
HNG + Toxin
100
1000
10000
Compound C (nM) + Toxin

FIG.6i

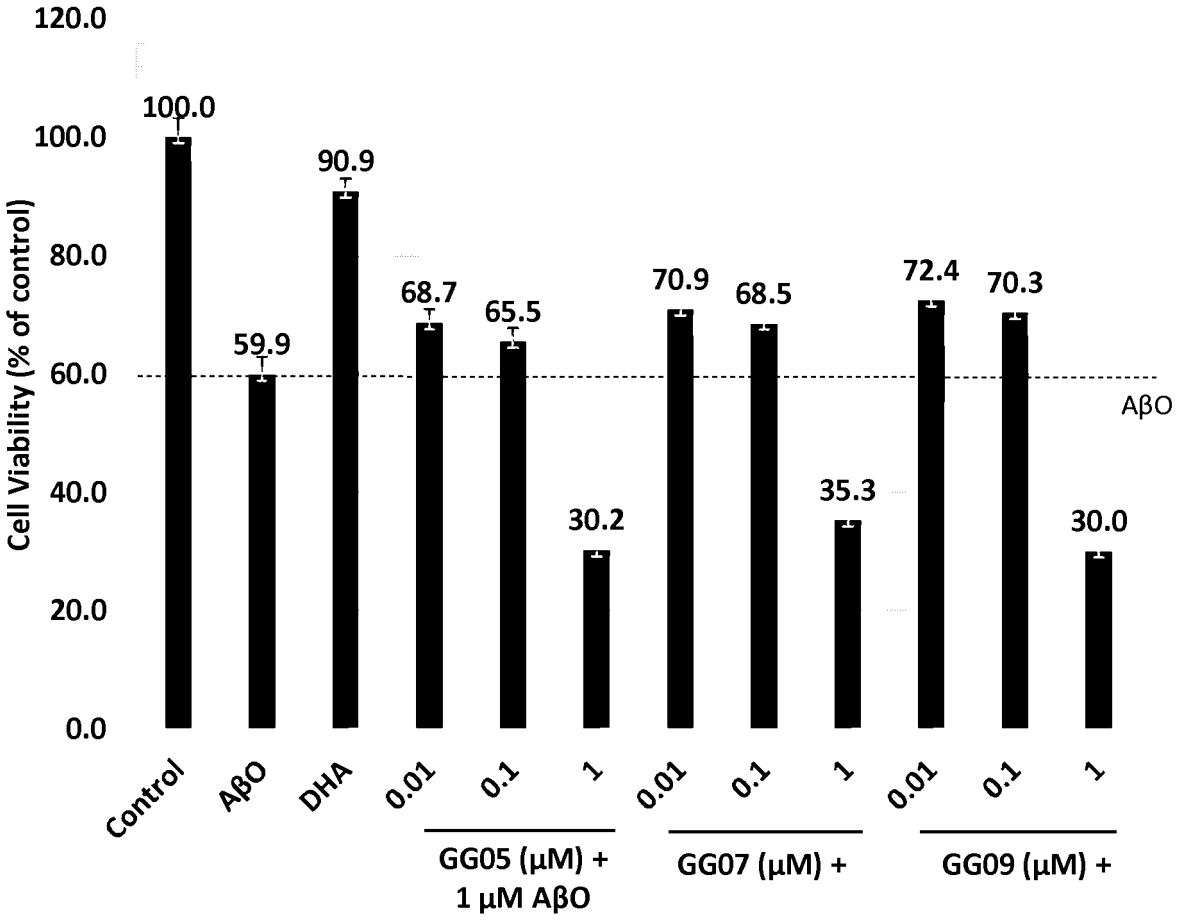

120.0
100.0
80.0
60.0
40.0
20.0
0.0
Cell Viability (% of control)
100.0
59.9
90.9
68.7
65.5
30.2
70.9
68.5
35.3
72.4
70.3
30.0
AβO
Control
AβO
DHA
0.01
0.1
1
0.01
0.1
1
0.01
0.1
1
GG05 (μM) + 1 μM AβO
GG07 (μM) +
GG09 (μM) +

FIG.7

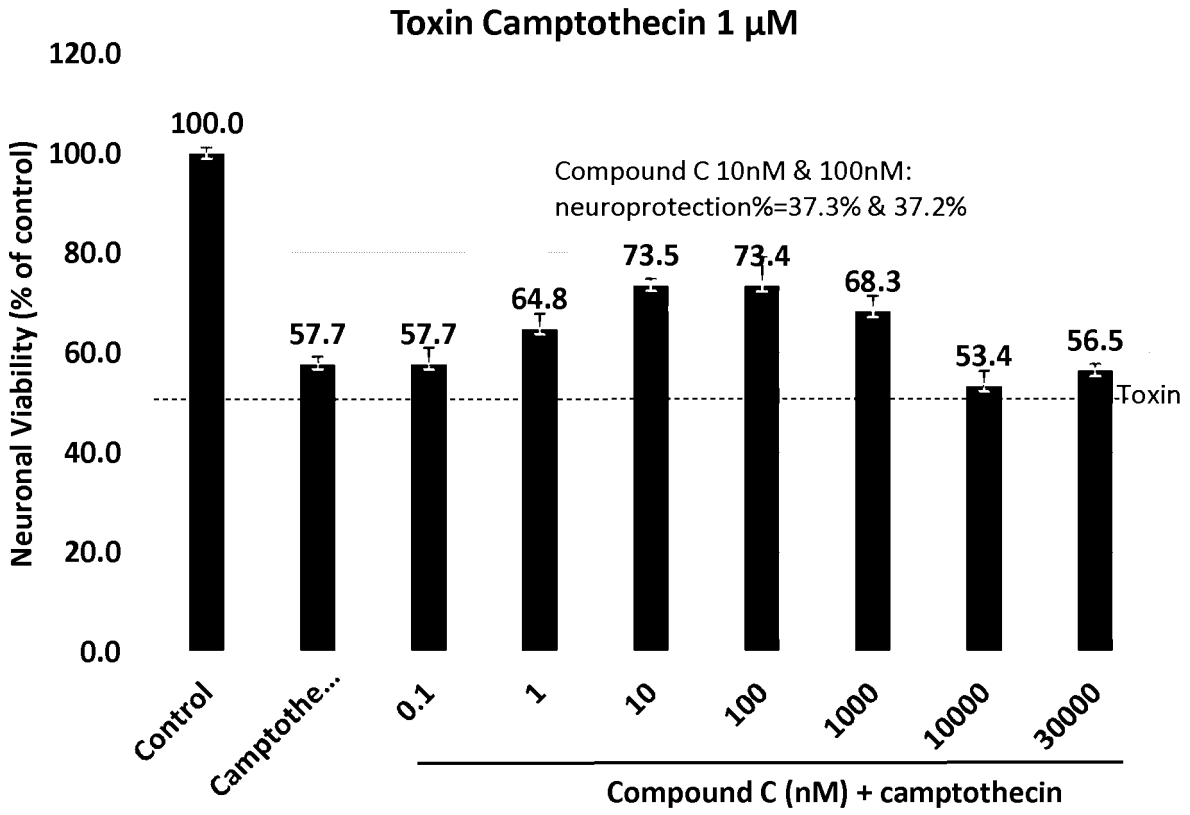

Toxin Camptothecin 1 μM
Neuronal Viability (% of control)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Compound C 10nM & 100nM:
neuroprotection%=37.3% & 37.2%
100.0
57.7
57.7
64.8
73.5
73.4
68.3
53.4
56.5
Toxin
Control
Camptothe...
0.1
1
10
100
1000
10000
30000
Compound C (nM) + camptothecin

FIG.8

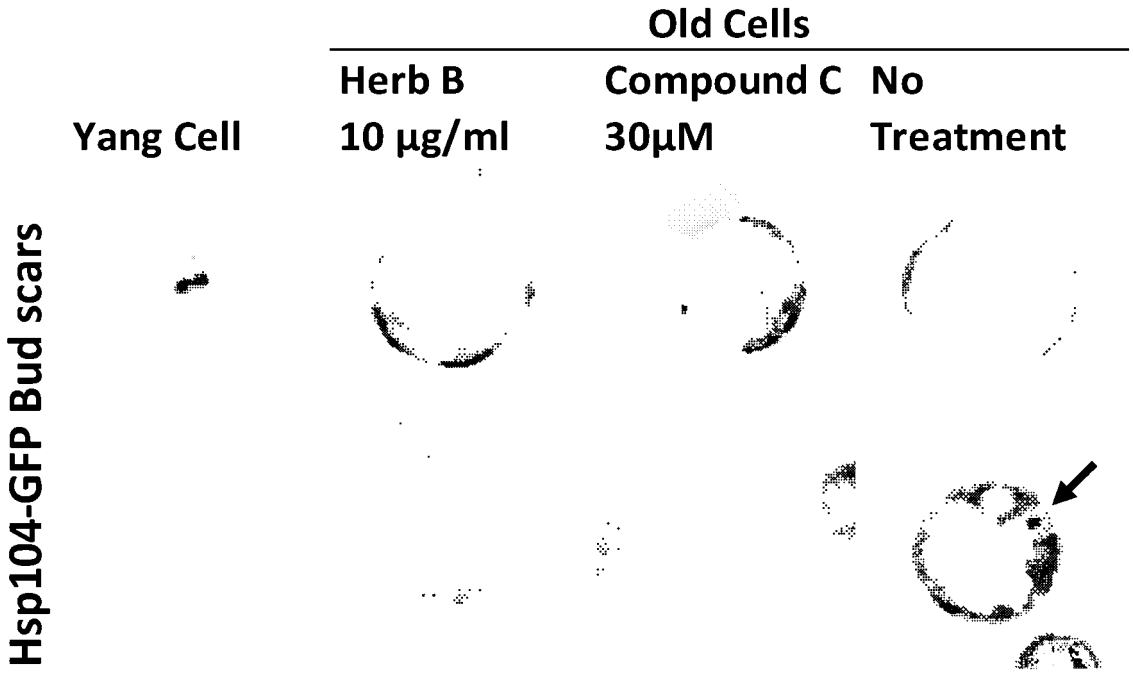

Old Cells
Herb B
10 μg/ml
Compound C
30μM
No
Treatment
Yang Cell
Hsp104-GFP Bud scars

FIG.9a

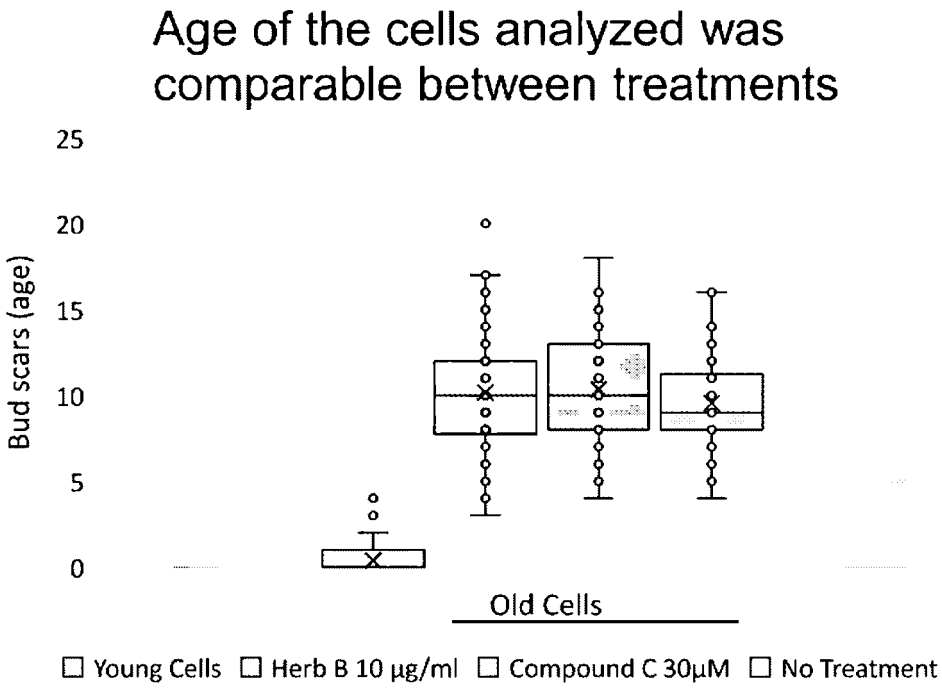

Age of the cells analyzed was comparable between treatments
Bud scars (age)
25
20
15
10
5
0
Old Cells
Young Cells
Herb B 10 µg/ml
Compound C 30µM
No Treatment

FIG.9b

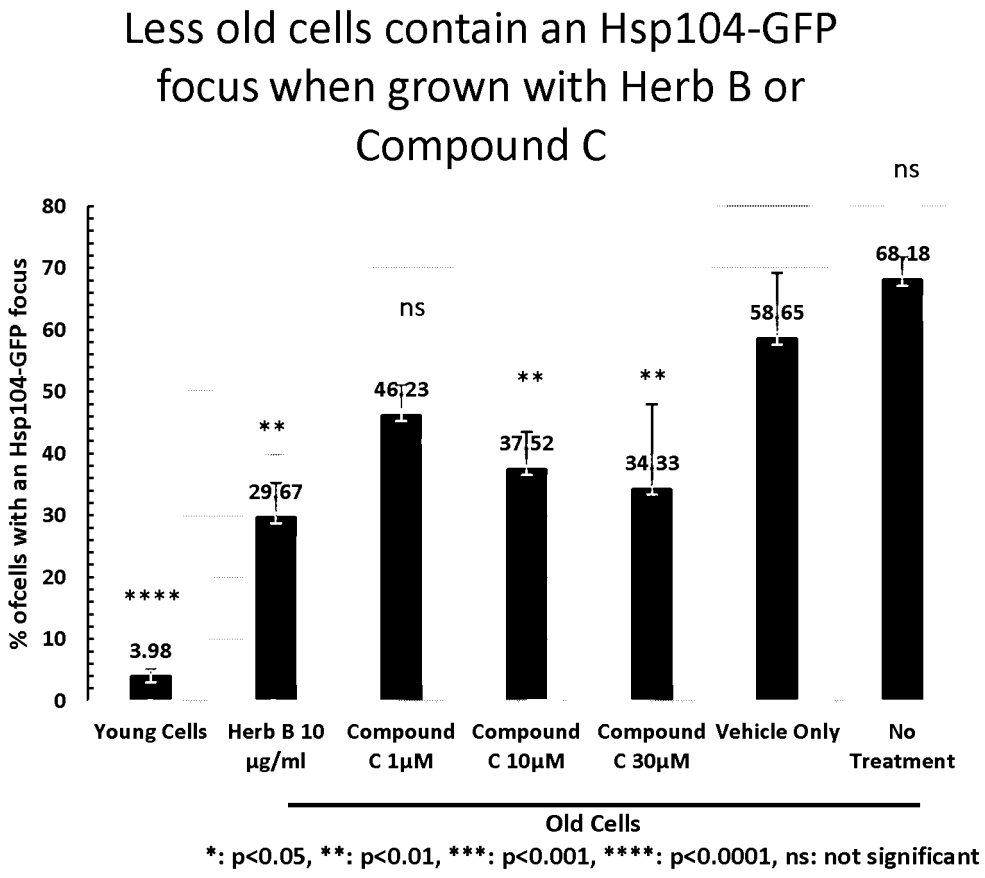

Less old cells contain an Hsp104-GFP focus when grown with Herb B or Compound C
% ofcells with an Hsp104-GFP focus
80
70
60
50
40
30
20
10
0
****
3.98
**
29.67
ns
46.23
**
37.52
**
34.33
58.65
ns
68.18
Young Cells
Herb B 10 µg/ml
Compound C 1µM
Compound C 10µM
Compound C 30µM
Vehicle Only
No Treatment
Old Cells
*: p<0.05, **: p<0.01, ***: p<0.001, ****: p<0.0001, ns: not significant

FIG.9c

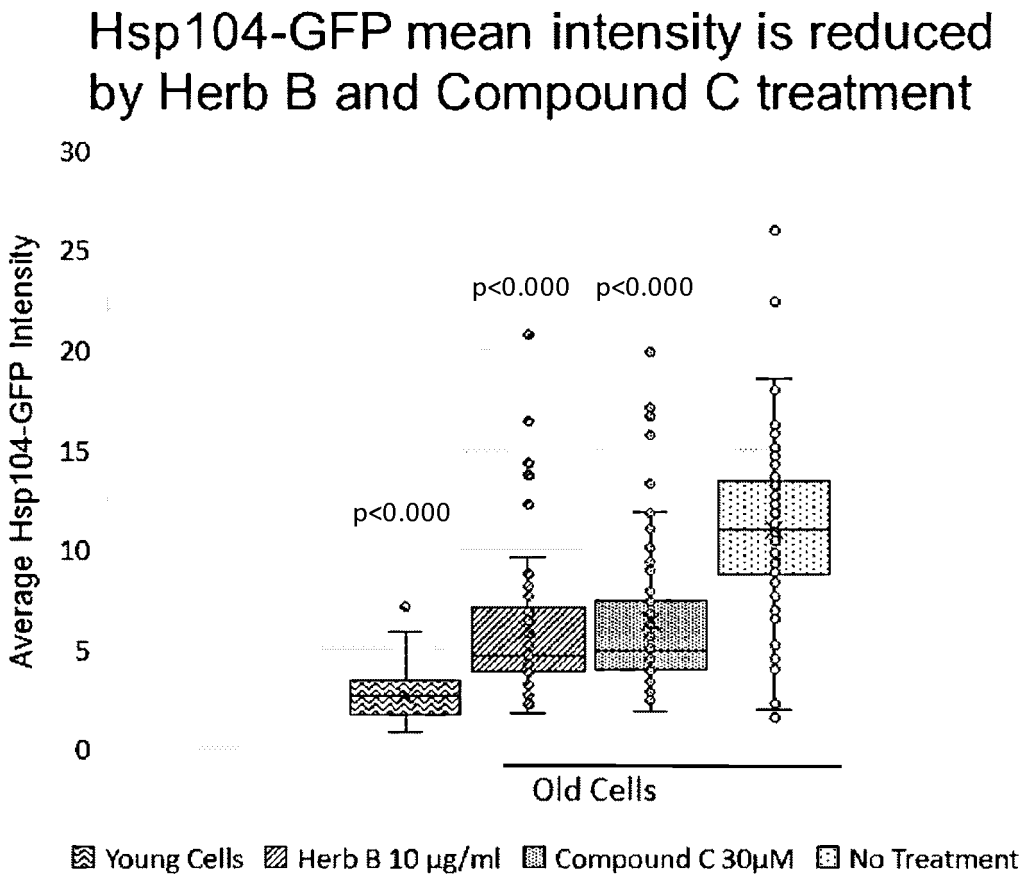

Hsp104-GFP mean intensity is reduced by Herb B and Compound C treatment
Average Hsp104-GFP Intensity
30
25
20
15
10
5
0
p<0.000
p<0.000
p<0.000
Old Cells
Young Cells
Herb B 10 µg/ml
Compound C 30µM
No Treatment

FIG.9d

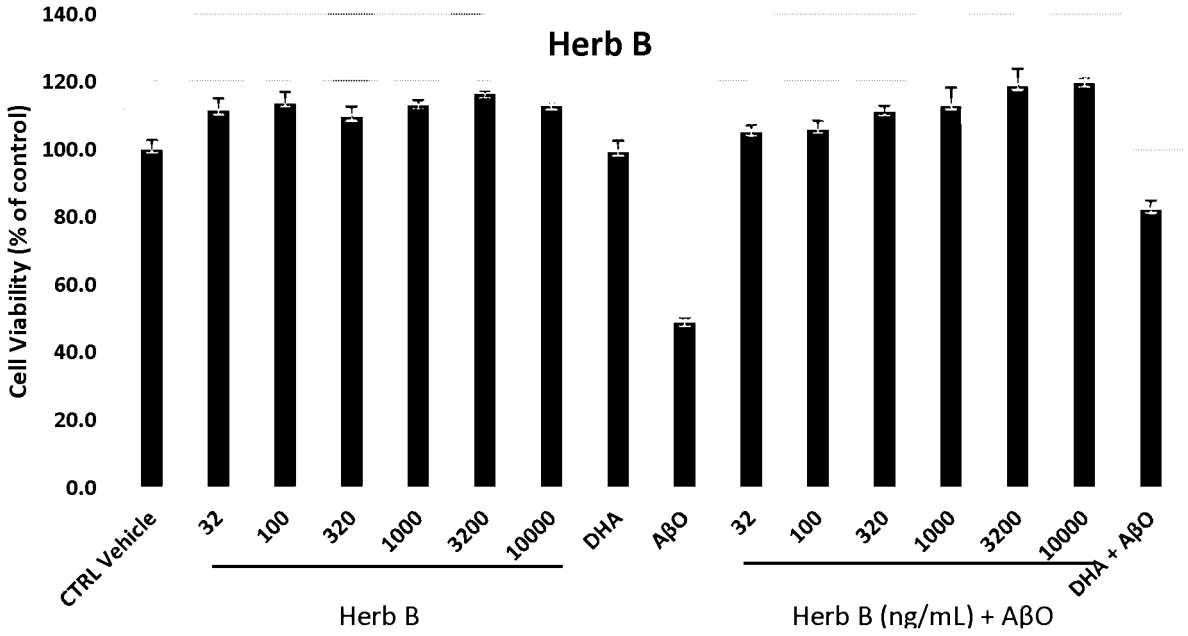
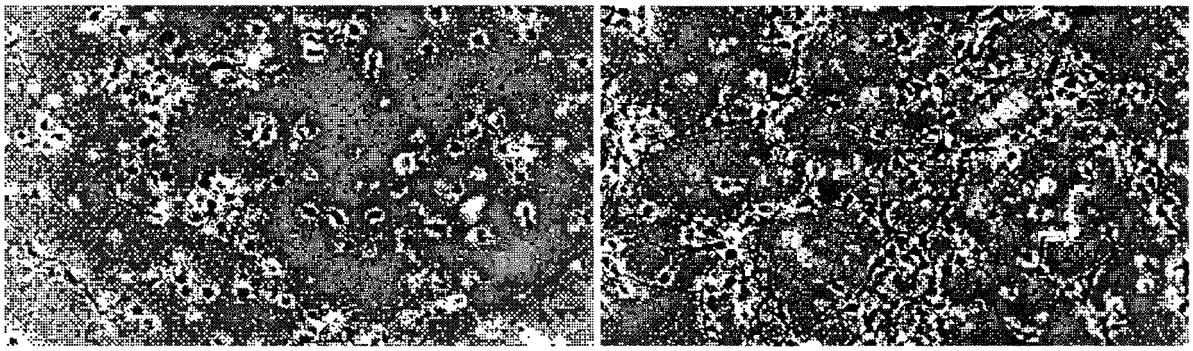

Herb B
Cell Viability (% of control)
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
CTRL Vehicle
32
100
320
1000
3200
10000
DHA
AβO
32
100
320
1000
3200
10000
DHA + AβO
Herb B
Herb B (ng/mL) + AβO

FIG.10



Left: AβO control; Right: herb B at 32 ng/mL added at 48 hours before adding AβO

FIG.11

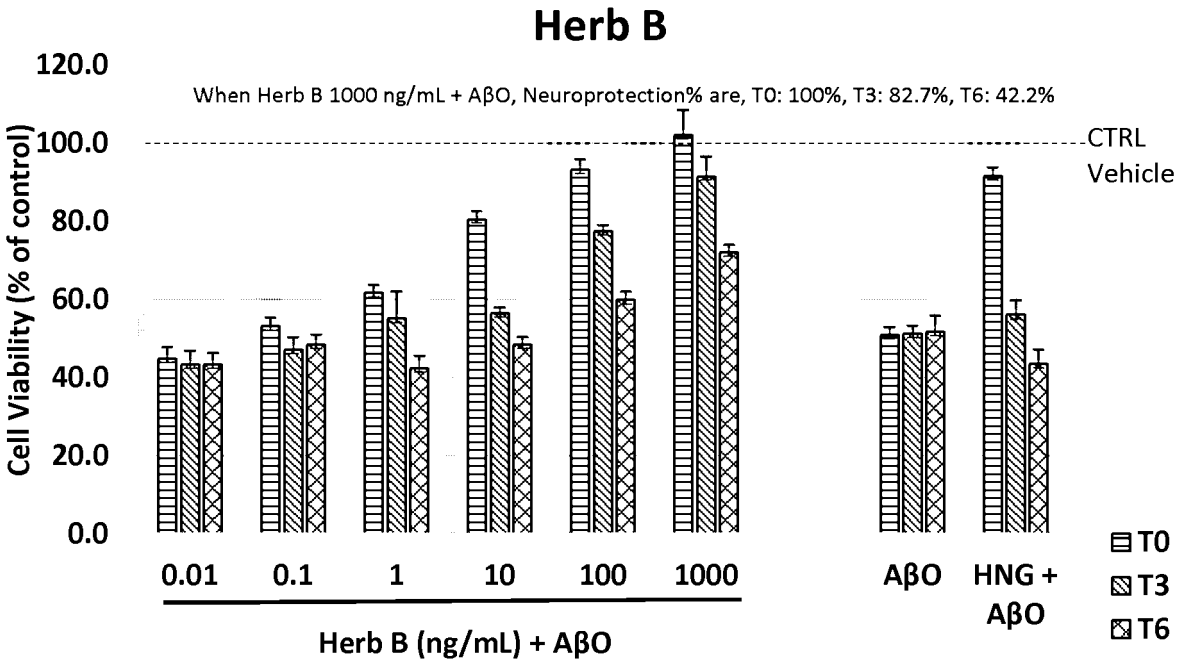


FIG.12

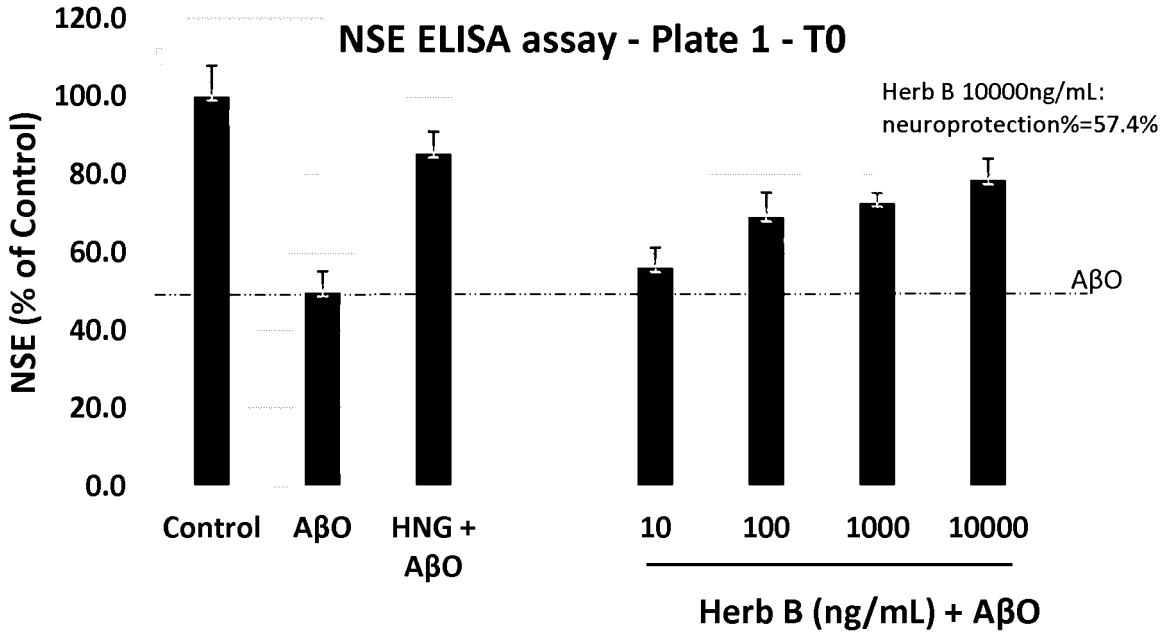


FIG.13a

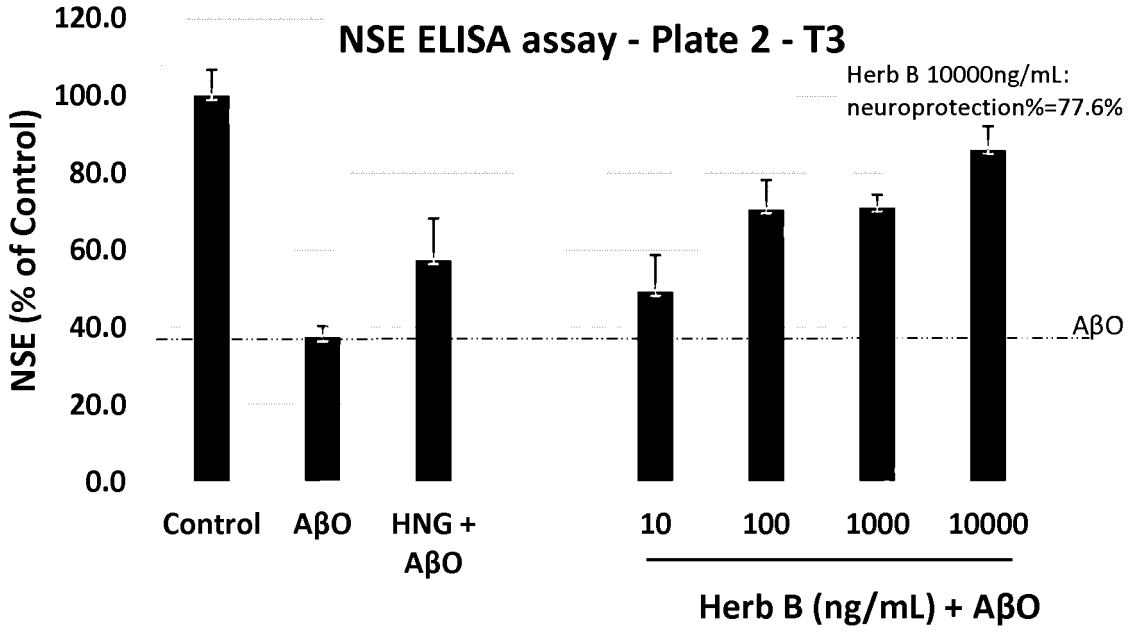


FIG.13b

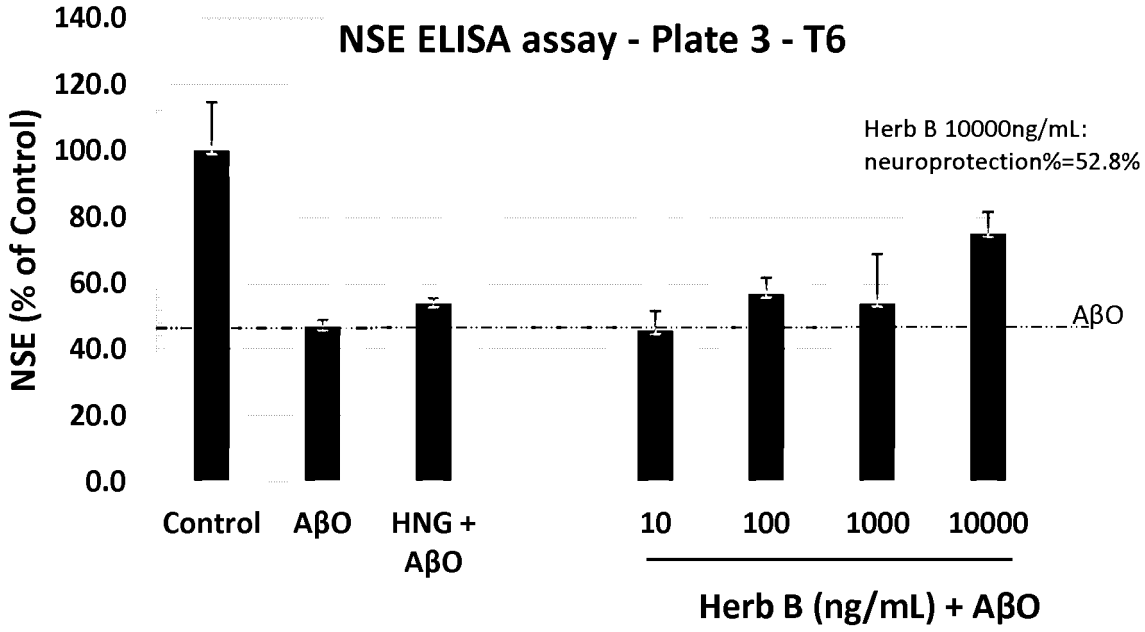


FIG.13c

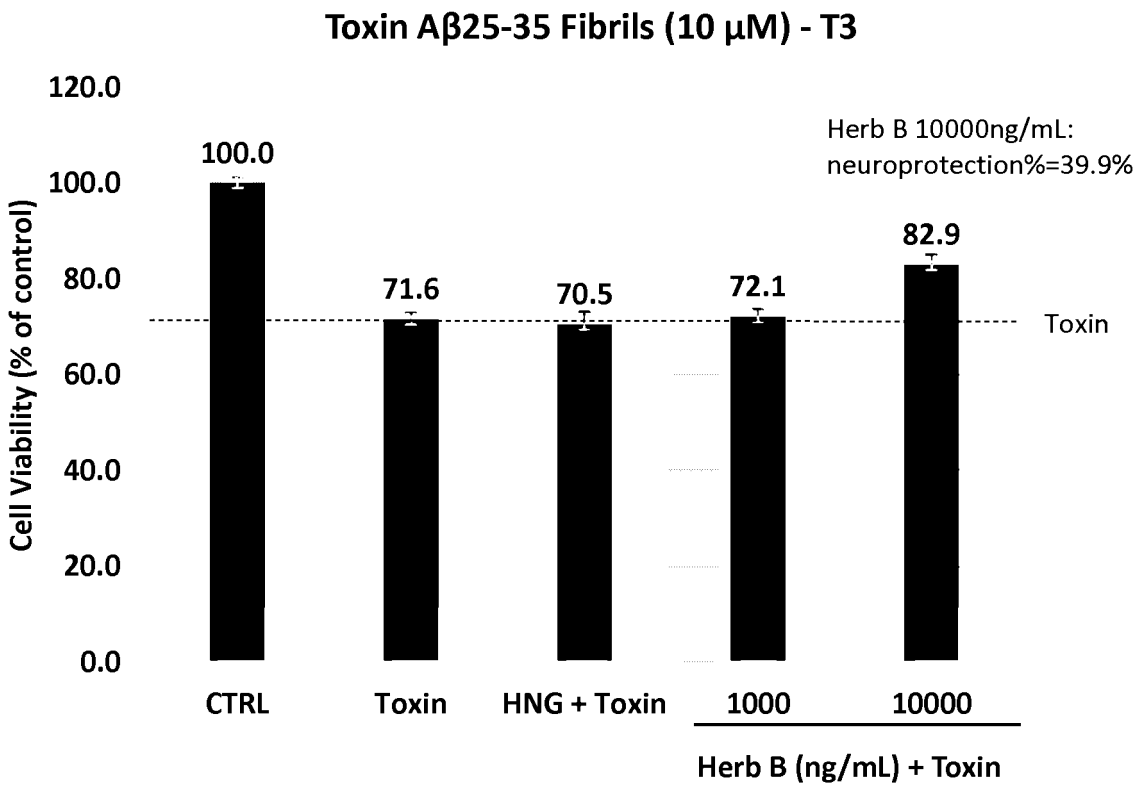


FIG.14a

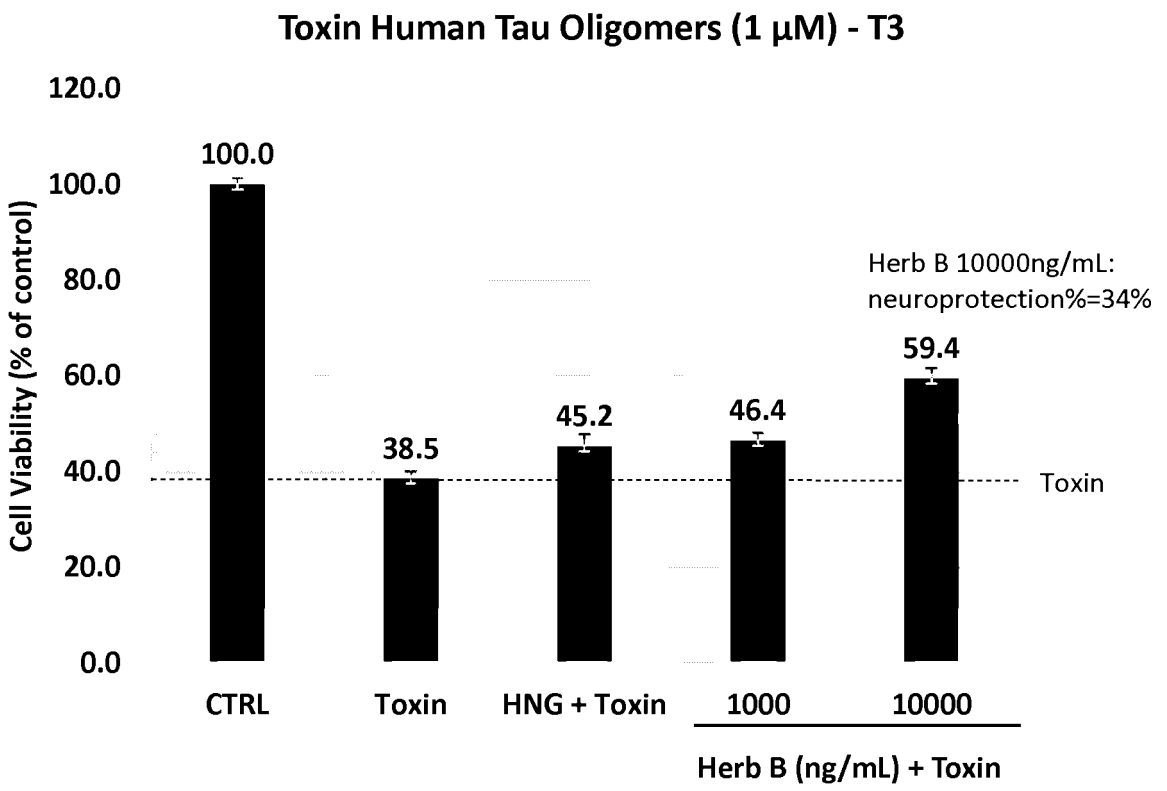


FIG.14b

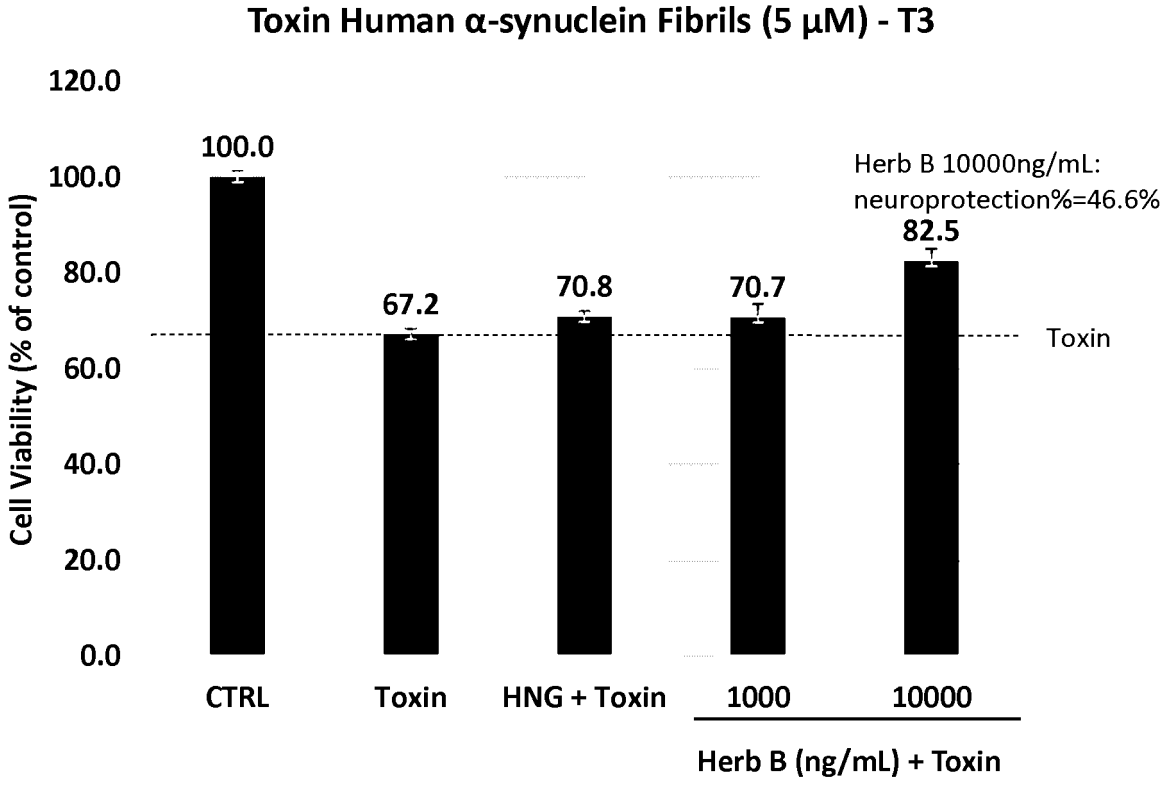


FIG.14c

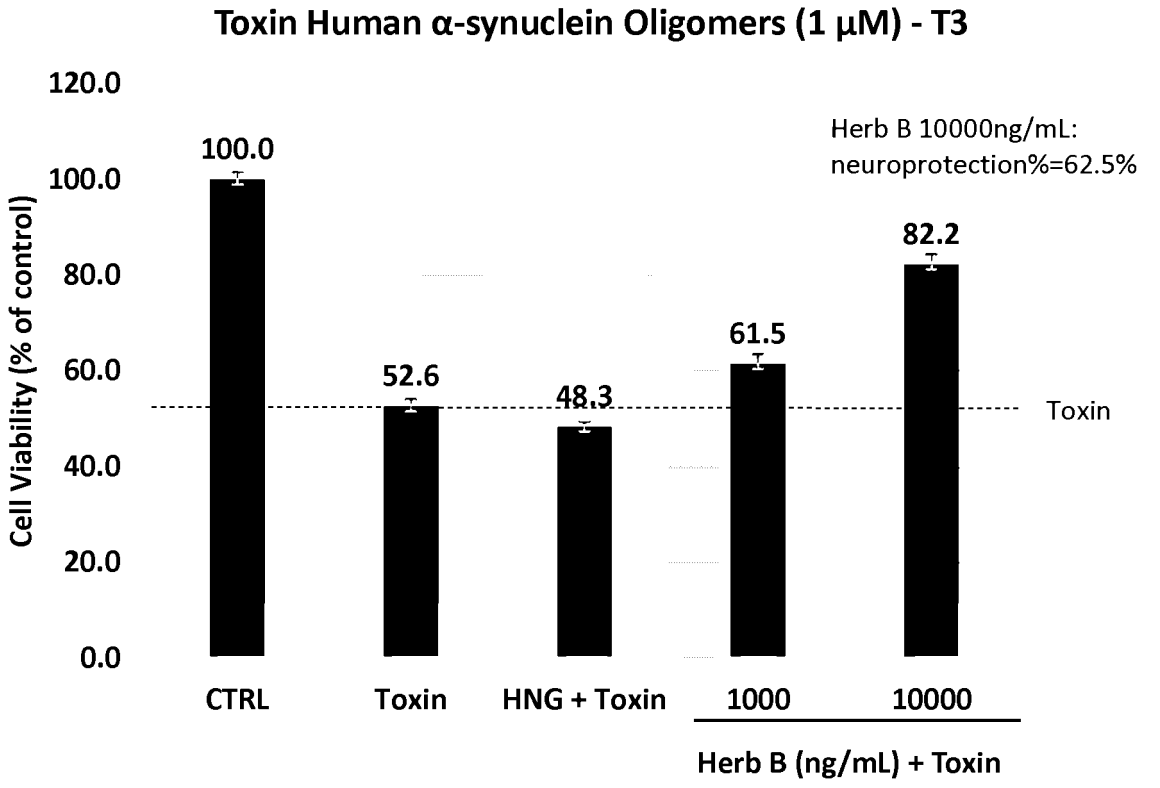


FIG.14d

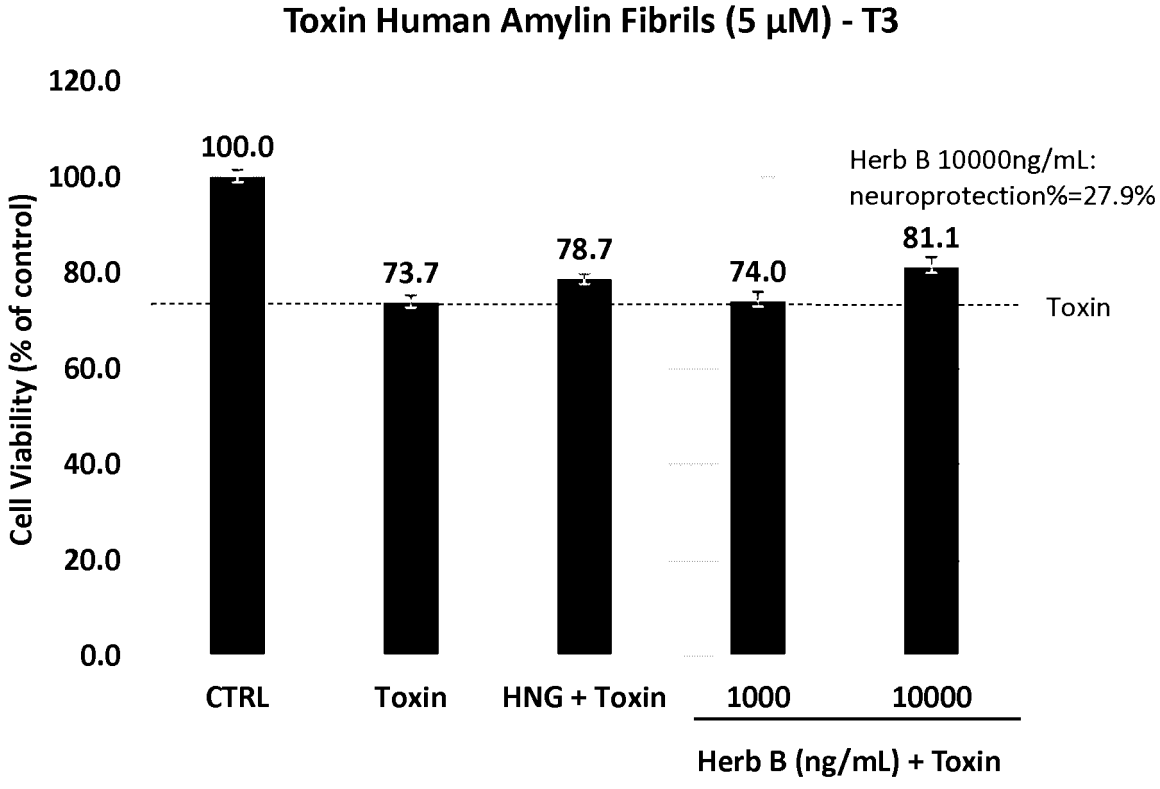


FIG.14e

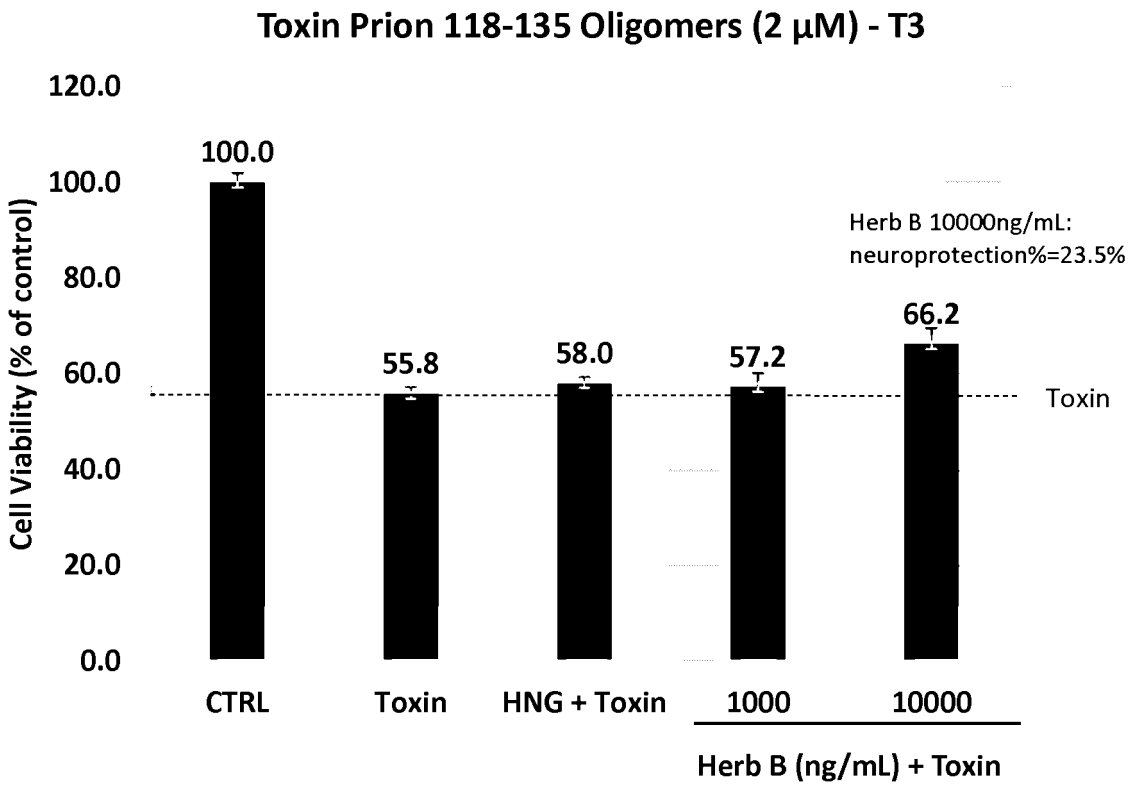


FIG.14f

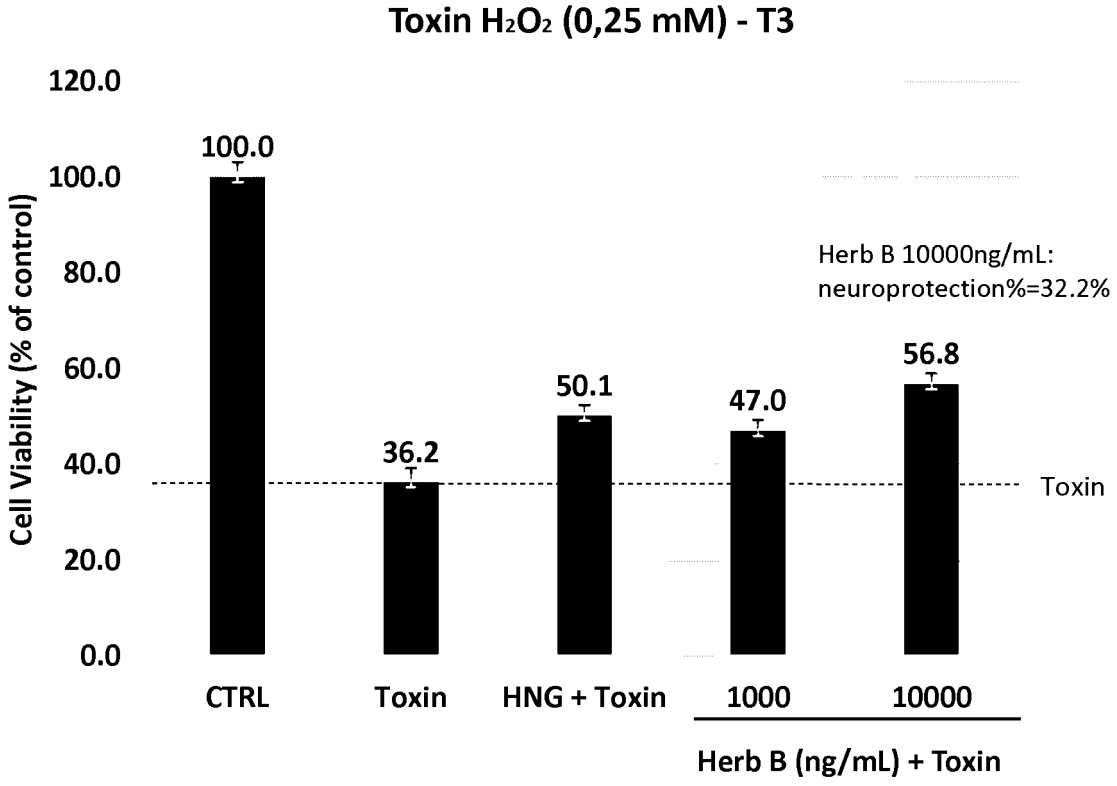


FIG.15a

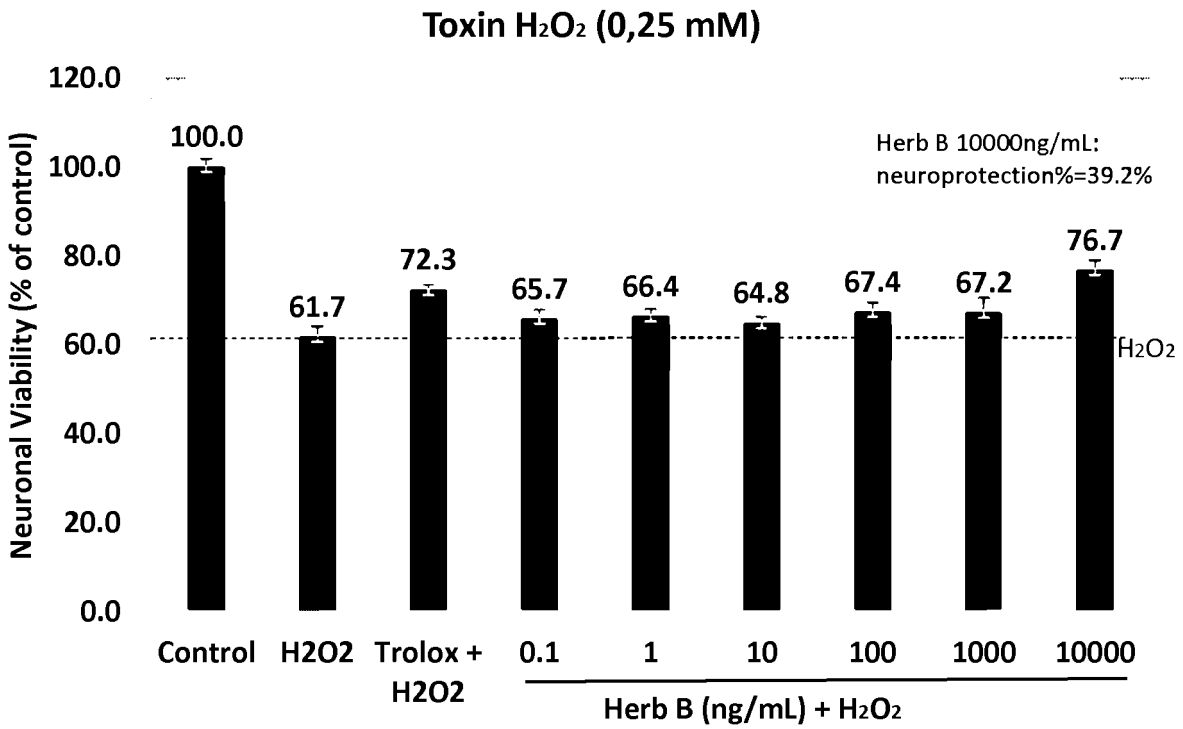


FIG.15b

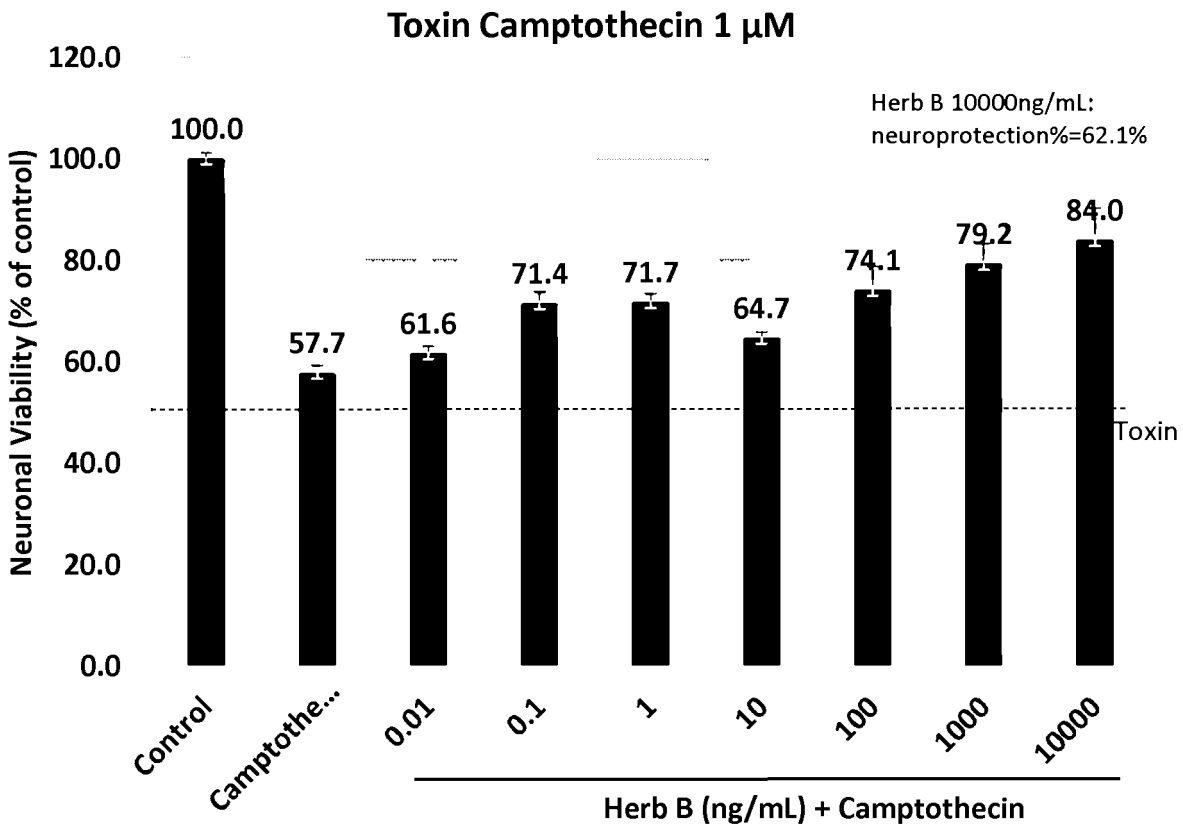


FIG.16