

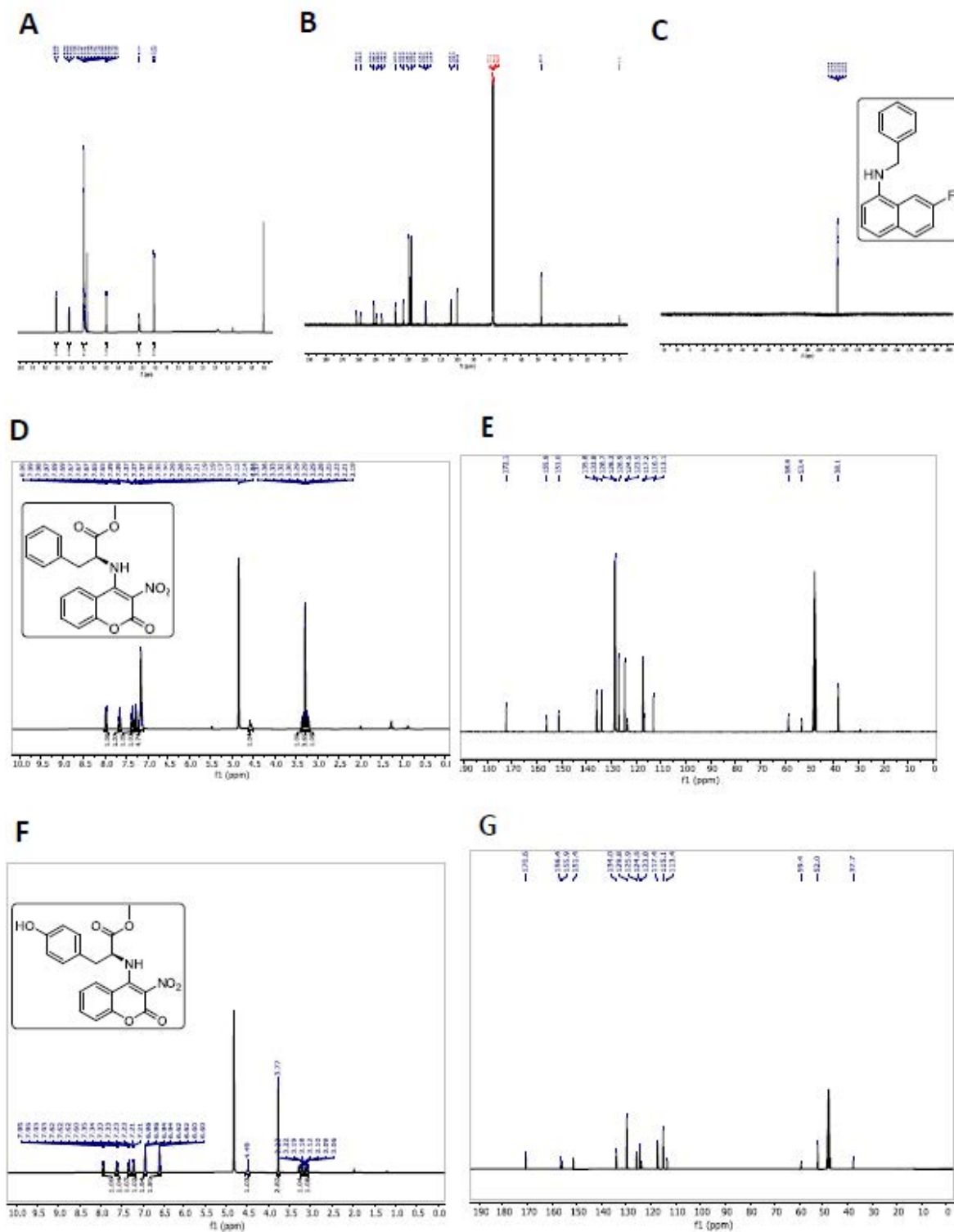
NMR Spectra of BK50118-A, BK50118-B and BK50118-C

Suppl Figure S1. NMR Spectra of BK50118-A, BK50118-B and BK50118-C.

A ¹H NMR Spectrum of N-phenylthieno[3,2-b]pyridin-7-amine (BK50118-A).

B ¹³C NMR Spectrum of N-phenylthieno[3,2-b]pyridin-7-amine (BK50118-A).

- C ^1H NMR Spectrum of 6-fluoro-N-phenylquinolin-4-amine (BK50118-B).
- D ^{13}C NMR Spectrum of 6-fluoro-N-phenylquinolin-4-amine (BK50118-B).
- E ^{19}F NMR Spectrum of 6-fluoro-N-phenylquinolin-4-amine (BK50118-B).
- F ^1H NMR Spectrum of 4-(benzyloxy)-6-fluoroquinoline (BK50118-C).
- G ^{13}C NMR Spectrum of 4-(benzyloxy)-6-fluoroquinoline (BK50118-C).
- H ^{19}F NMR Spectrum of 4-(benzyloxy)-6-fluoroquinoline (BK50118-C).



NMR Spectra of CL3-499, CL3-512 and CL3-514

Suppl Figure S2. NMR Spectra of CL3-499, CL3-512 and CL3-514.

A ¹H NMR Spectrum of N-benzyl-6-fluoroquinolin-4-amine (CL3-499).

B ¹³C NMR Spectrum of N-benzyl-6-fluoroquinolin-4-amine (CL3-499).

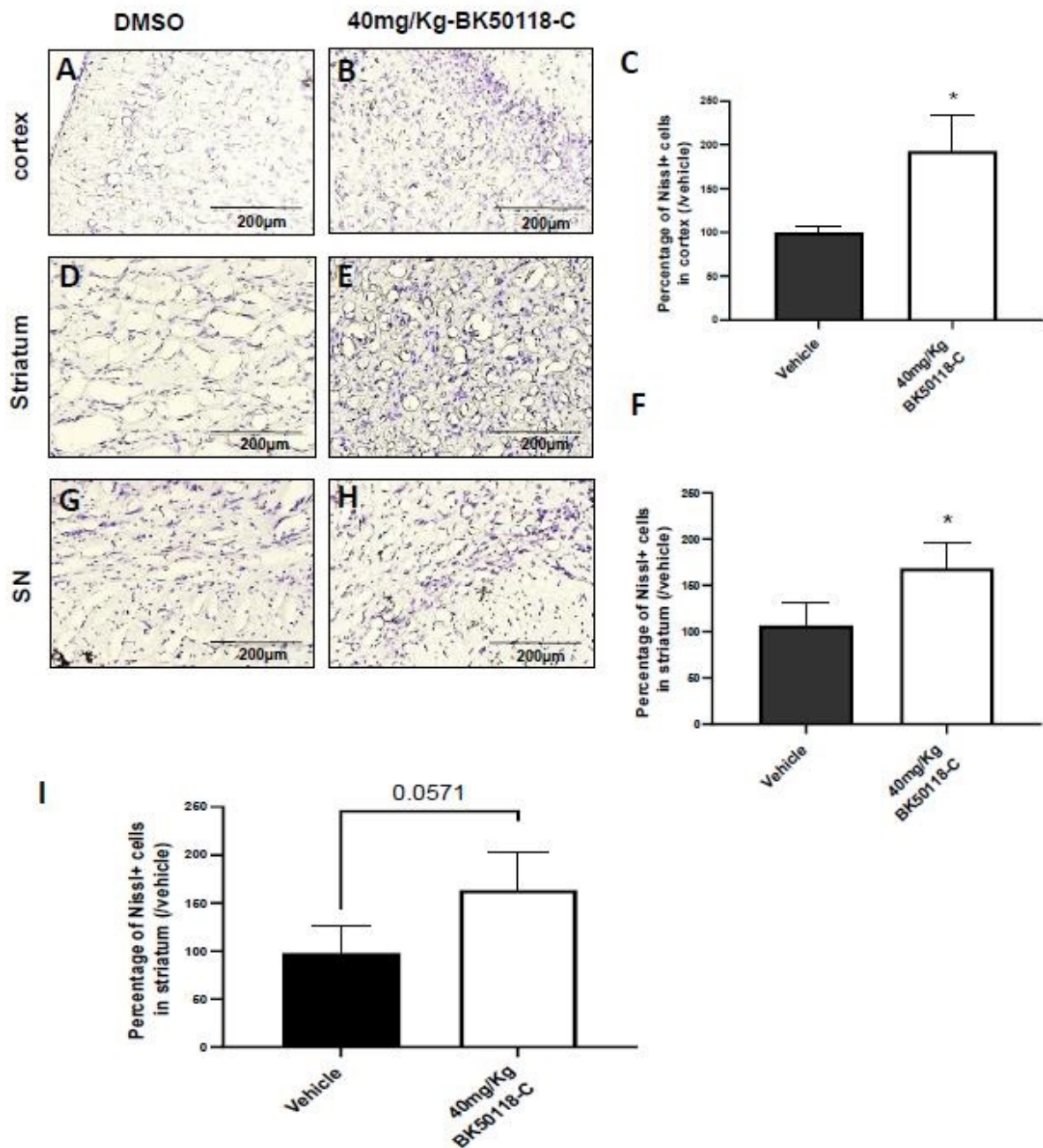
C ^{19}F NMR Spectrum of N-benzyl-6-fluoroquinolin-4-amine (CL3-499).

D ^1H NMR Spectrum of (S)-methyl (3-nitro-2-oxo-2H-chromen-4-yl)-phenylalaninate (CL3-512).

E ^{13}C NMR Spectrum of (S)-methyl (3-nitro-2-oxo-2H-chromen-4-yl)-phenylalaninate (CL3-512).

F ^1H NMR Spectrum of (S)-methyl (3-nitro-2-oxo-2H-chromen-4-yl)-tyrosinate (CL3-514).

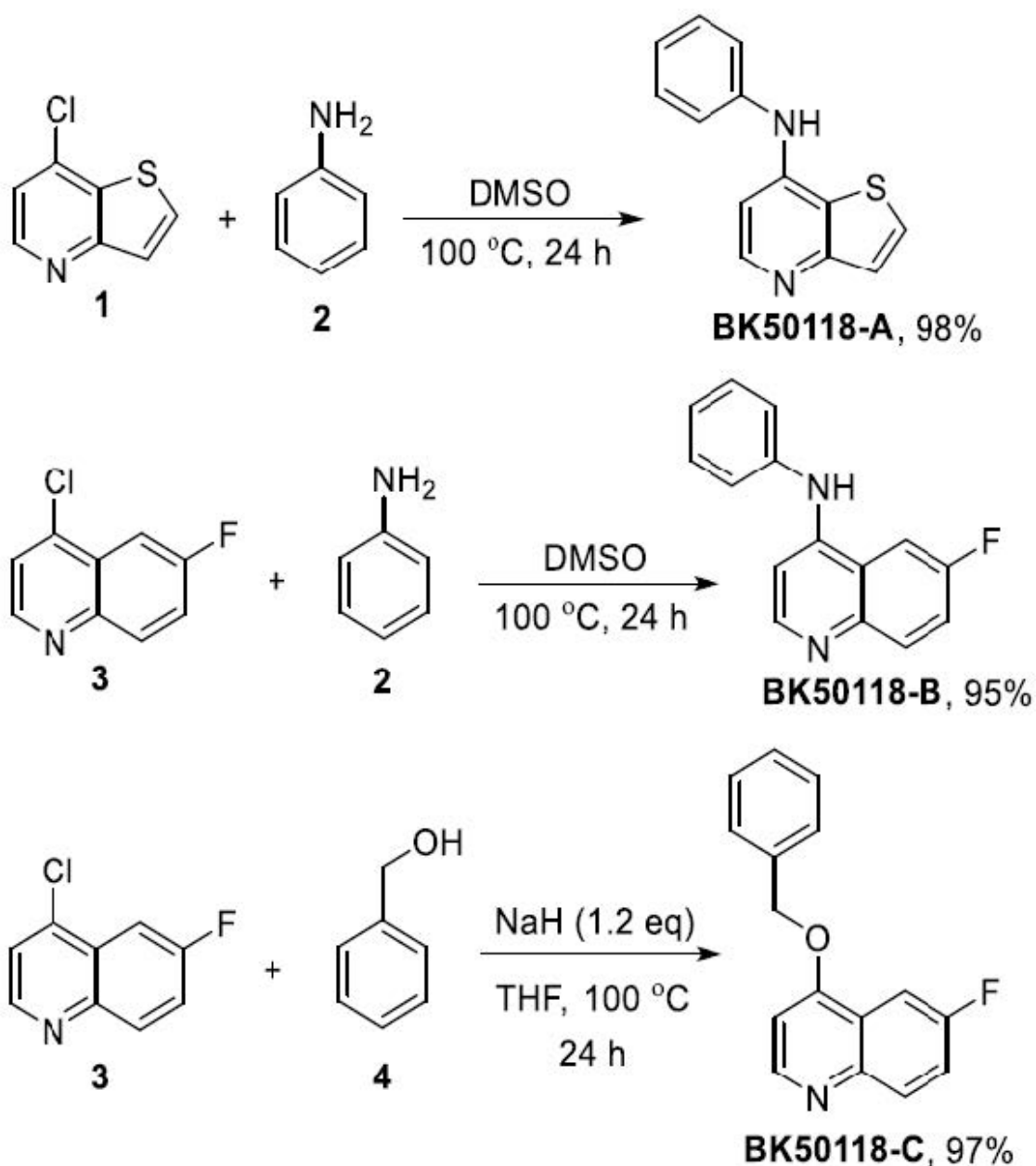
G ^{13}C NMR Spectrum of (S)-Methyl (3-nitro-2-oxo-2H-chromen-4-yl)-tyrosinate (CL3-514).



Suppl Figure S3. BK50118-C improved cell survivals in TgA53T mice. Male and female TgA53T mice were treated with intraperitoneal injection of vehicle or BK50118-C at the daily dosage of 40 mg/Kg for 7 days. Nissl staining showed BK50118-C significantly increased the neuron counts in cortex **B)**, striatum **E)** and substantia nigra (SN) **H)** compared to corresponding vehicles **A), D) and G)**, verified

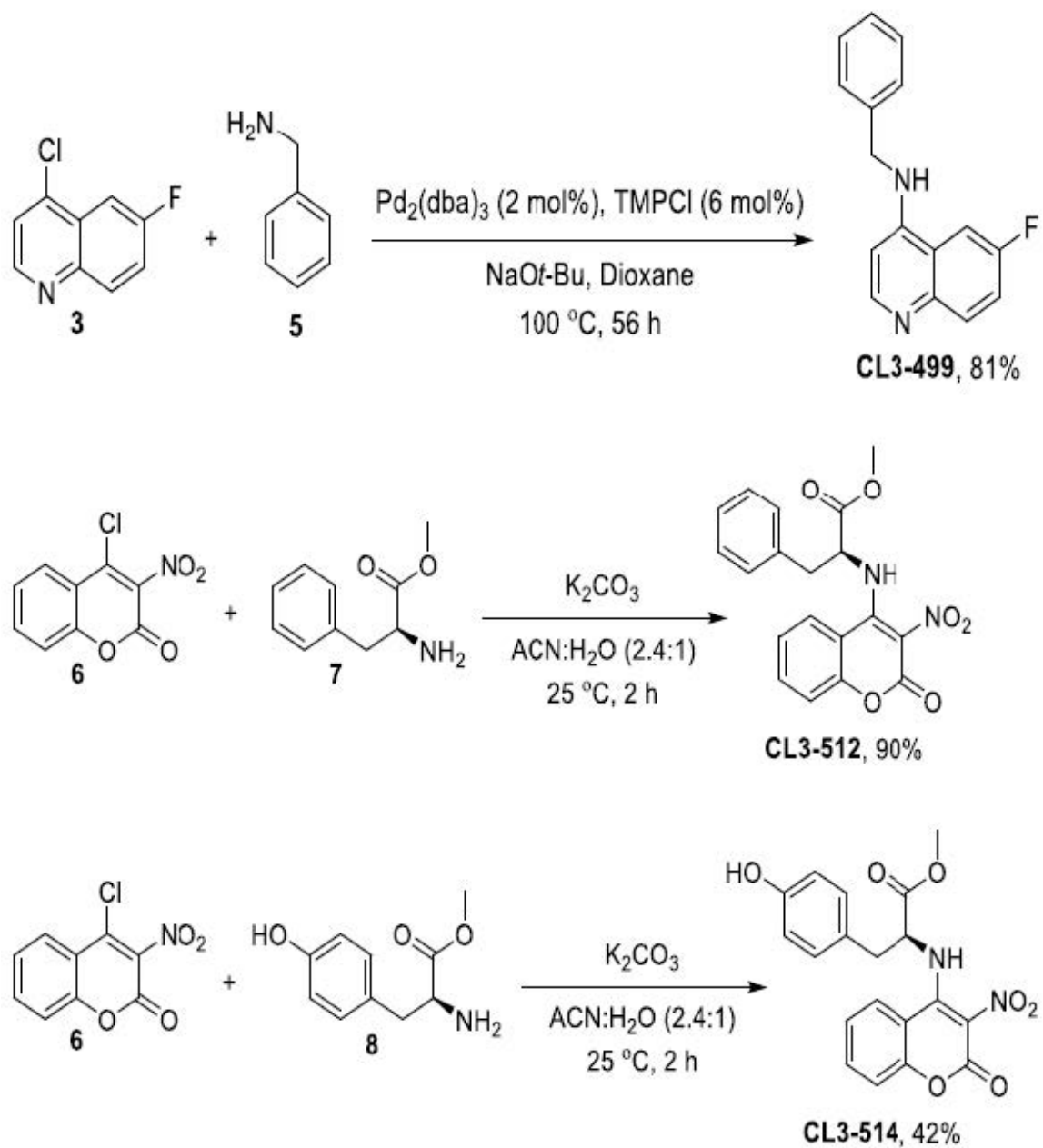
by quantification of Nissl+ cells in cortex **C**), striatum **F**) and SN **I**). Asterisk indicates statistic significant difference vs vehicle. * $p < 0.05$ vs vehicle. Two-tailed student's t test was used for analysis. N=3-4 mice per group. All values presented as Mean \pm SD.

Scale bars: 200 μ m.



Synthesis of BK50118-A, BK50118-B and BK50118-C

Suppl Figure S4. Synthesis of BK50118-A, BK50118-B and BK50118-C.



Synthesis of CL3-499, CL3-512 and CL3-514

Suppl Figure S5. Synthesis of CL3-499, CL3-512 and CL3-514.