Table S1

Antibody	Antigen retrieval	Endogenous peroxidases & protein block	Primary antibody	Secondary antibody
NeuN	0.01M citric acid, pH6 (3 x 5mins) Cool 20mins	3% H_2O_2 in PBS (10mins) 5% NGS & 1% BSA in PBS (30mins)	Mouse anti-NeuN, 1:500 (Merck Millipore; AB377)	Goat anti-Mouse, 1:200 (Biotynylated, Vector Labs; BA-9200-1.5)
Iba-1	0.01M citric acid, pH6 (3 x 3mins) Cool 20mins	0.3% H_2O_2 in 50% MeOH (30mins) 10% NGS in PBS (30mins)	Rabbit anti-Iba-1, 1:1000 (Wako Pure Chemical Industries; 019-19741)	Goat anti-Rabbit, 1:200 (Biotynylated, Vector Labs; BA-9100-1.5)
8-OHdG	0.01M citric acid, pH6 (3 x 5mins) Cool 20mins	0.3% H_2O_2 in 50% MeOH (15mins) 5% NGS & 3% BSA in 0.1% PBS-TX (45mins)	Mouse anti-8-OHdG, 1:200 (JalCA; MOG-100P)	Goat anti-Mouse, 1:200 (Biotynylated, Vector Labs; BA-9200-1.5)
BDNF	0.05% Tween 20 in 10mM citrate, pH6 (3 x 5mins) Cool 15mins	0.3% H_2O_2 in 50% MeOH (15mins) 10mg/ml $NaBH_4$ in PBS (3 x 10mins) 20% NGS & 1% BSA in 0.1% PBS-TX (60mins)	Rabbit anti-BDNF, 1:500 (Abcam; AB108319)	Goat anti-Rabbit, 1:300 (Invitrogen, Alexa Fluor 594)
MAP2	0.1% TBS-TX, pH10 (2 x 10mins)	3% H_2O_2 in PBS (10mins) 10mg/ml $NaBH_4$ in PBS (2 x 15mins) DAKO protein block serum (30mins)	Mouse anti-MAP2, 1:200 (Invitrogen; MA1-25044)	Goat anti-Mouse, 1:1000 (Invitrogen, Alexa Fluor A488)