

Antibodies	Reference	Source	Host	Immunohistochemistry	Immunofluorescence	Remark
Primary antibodies: Phosphorylated alpha-synuclein Ser129 (EP1536Y clone) NeuN Olig2-AF488 (batch 2897028) Iba1 GFAP	Ab51253 MAB377 AB9610-AF488 Ab5076 MAB360	Abcam Millipore Millipore Abcam Millipore	Rabbit monoclonal Mouse monoclonal Rabbit polyclonal Goat polyclonal Mouse monoclonal	1:10 000	1:10 000 or 1:5 000 1:1000 1:500 1:500 1:500	
Secondary antibodies: Goat anti-mouse A633 Goat anti-rabbit A568 Goat anti-mouse A594 Donkey anti-goat A488 Donkey anti-rabbit A594 Donkey anti-mouse A680 Goat anti-rabbit biotinylated	A21050 A-11011 115-585-166 BA-1000	Life Technologies Molecular Probes Jackson Immunoresearch Vector Labs			1:500 1:500 1:400 1:500 1:500 1:500	Olig2/Pser129/NeuN staining Olig2/Pser129/NeuN staining ThS/ NeuN Staining Iba1/Pser129/GFAP Iba1/Pser129/GFAP Iba1/Pser129/GFAP Pser129 staining

Additional file 2: List of antibodies, references and working concentrations