

antigen	species	Manu- facturer	dilution	blocking	Secondary antibody
alpha synuclein phospho S129	Rabbit polyclonal	Abcam Ab51253	1:2000	5% horse serum (immo- peroxidase) 5% BSA (immuno- fluorescence)	biotynilated goat-anti-rabbit (Vector Laboratories) Alexa 488 anti- rabbit Alexa 568 anti- rabbit
11A5 Anti SER p129 α -syn	Mouse monoclonal	Prothena	n/a	n/a	PLA assay
ionized calcium- binding adapter molecule 1 (Iba1)	Chicken polyclonal	Abcam Ab139590	1:800	5% BSA	Alexa 568 anti- chicken
Iba1	Rabbit polyclonal	Wako 019-19741	1:2000	5% BSA	Alexa 568 anti- rabbit
Tyrosine hydroxylase (TH)	Chicken polyclonal	Abcam Ab76442	1:1000	5% BSA	Alexa 488 anti- chicken
Tyrosine Hydroxylase (TH)	Rabbit polyclonal	Millipore AB152	1:1000	5% BSA	Alexa 568 anti- rabbit
Dopamine transporter (DAT)	Rat monoclonal	Millipore MAB369	1:1000	5% BSA	Alexa 594 anti- rat
Synapto- physin	Mouse monoclonal	Dakopatts Clone SY38	1:800	5% BSA	Alexa 488 anti- mouse

Suppl table 1: Antibodies used.