

Parkinson's Research Antibody Sampler Kit

Cat# AK0216

Upon receipt, store at -20°C. Avoid freeze/thaw cycles.

PRODUCT DESCRIPTION

Parkinson's disease (PD), the second most common neurodegenerative disease after Alzheimer's, is a progressive movement disorder characterized by rigidity, tremors, and postural instability. The pathological hallmark of PD is progressive loss of dopaminergic neurons in the substantia nigra of the ventral midbrain and the presence of intracellular Lewy bodies in surviving neurons of the brain stem. Research studies have shown that various genes and loci (α -synuclein/PARK1 and 4, parkin/PARK2, UCH-L1/PARK5, PINK1/PARK6, DJ-1/PARK7, LRRK2/PARK8, synphilin-1, and NR4A2) are genetically linked to PD. α -Synuclein, a 140 amino acid protein expressed abundantly in the brain, is a major component of aggregates found in Lewy bodies. Parkin is involved in protein degradation through the ubiquitin-proteasome pathway, and investigators have shown that mutations in Parkin cause early onset of PD. In the case of autosomal recessive juvenile Parkinsonism (AR-JP), deletions have been found on chromosome 6 in the Parkin gene. PTEN induced putative kinase 1 (PINK1) is a mitochondrial serine/threonine kinase involved in the normal function and integrity of mitochondria, as well as a reduction of cytochrome c release from mitochondria. PINK1 phosphorylates Parkin and promotes its translocation to mitochondria. Mutations of PINK1 are associated with loss of protective function, mitochondrial dysfunction, aggregation of α -synuclein, and proteasome dysfunction. DJ-1 is involved in multiple cellular functions; it has been shown to cooperate with Ras to increase cell transformation, to regulate transcription of the androgen receptor, and may function as an indicator of oxidative stress, while loss-of-function mutations in DJ-1 cause early onset of PD. Dopamine D2 receptor-mediated functions are greatly impaired in DJ-1 (-/-) mice, resulting in reduced long-term depression. Leucine-rich repeat kinase 2 (LRRK2) contains amino-terminal leucine-rich repeats (LRR), a Ras-like small GTP binding protein-like (ROC) domain, an MLK protein kinase

PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
A340620	PARK7 Polyclonal Antibody	20 μ L	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
A340621	PRKN Polyclonal Antibody	20 μ L	WB, IHC, ELISA	Human	Rabbit
A340168	PINK1 Polyclonal Antibody	20 μ L	WB, ELISA	Human, Mouse	Rabbit

A340684	SNCA Polyclonal Antibody	20μL	WB, IHC, IF, ELISA	Human, Mouse, Rat	Rabbit
A1013s	Goat Anti-Rabbit IgG (H+L) (peroxidase/HRP conjugated)	120μL	WB, ELISA	Rabbit	Goat

PRODUCT USE LIMITATION

These products are intended for research use only.