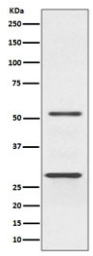
PARK2 Antibody / Parkinson Disease Protein 2 Antibody [clone AOCD-16] (RQ4751)

Catalog No.	Formulation	Size
RQ4751	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AOCD-16
Purity	Affinity purified
UniProt	O60260
Applications	Western blot: 1:500-1:2000
Limitations	This PARK2 Antibody / Parkinson Disease Protein 2 Antibody is available for research use only.



PARK2 Antibody Human Jurkat T Cell Leukemia WB. Western blot testing of human Jurkat T cell leukemia lysate was performed with PARK2 Antibody. A prominent band is detected at approximately 55 kDa, within the expected molecular weight range of 50-60 kDa for full-length Parkin. An additional strong band is observed at approximately 30 kDa and may represent a smaller Parkin isoform. This PARK2 Antibody demonstrates detection of Parkinson Disease Protein 2 in human Jurkat T cell leukemia cells.

Description

PARK2 Antibody / Parkinson Disease Protein 2 Antibody detects Parkin, an E3 ubiquitin ligase encoded by the PRKN gene and historically designated PARK2. Parkin is a member of the RING-between-RING (RBR) family of E3 ubiquitin ligases and plays an important role in ubiquitin signaling and mitochondrial quality control. PARK2 has been extensively investigated in Parkinson disease, particularly because pathogenic variants affecting Parkin are associated with autosomal recessive juvenile and early-onset forms of parkinsonism.

Parkin functions closely with the mitochondrial kinase PINK1 in a pathway that identifies and removes damaged mitochondria. Following loss of mitochondrial membrane potential, PINK1 accumulates on the outer mitochondrial membrane and promotes activation and recruitment of Parkin. Activated Parkin ubiquitinates multiple mitochondrial proteins, generating signals that help recruit downstream components involved in mitochondrial turnover. A PARK2 Antibody can therefore support studies of Parkin expression in experimental models of mitochondrial stress and quality control.

The PINK1-Parkin pathway is particularly important to research on mitophagy, the selective autophagic removal of dysfunctional mitochondria. Efficient mitochondrial turnover helps cells maintain energy production and limit the accumulation of damaged organelles and oxidative stress. Because neurons have substantial metabolic requirements and depend heavily on mitochondrial function, disruption of these quality-control mechanisms is of particular interest in studies of neuronal survival and neurodegenerative disease.

PARK2 is strongly associated with the genetics and molecular biology of Parkinson disease. Loss-of-function variants can impair Parkin E3 ubiquitin ligase activity and interfere with mitochondrial homeostasis. Research on Parkinson Disease Protein 2 therefore provides an important connection between ubiquitination, mitochondrial dysfunction, mitophagy and mechanisms contributing to neurodegeneration.

NSJ Bioreagents offers PARK2 Antibody reagents for investigating Parkin expression and function. A Parkinson Disease Protein 2 Antibody can support research into Parkinson disease, PINK1-Parkin signaling, ubiquitination, mitophagy, mitochondrial quality control and molecular mechanisms associated with neuronal degeneration.

Researchers studying PRKN expression and Parkin function can explore our Parkin Antibody page for additional reagents targeting this E3 ubiquitin ligase and its roles in mitophagy, mitochondrial quality control and neurodegeneration.

Application Notes

Optimal dilution of the PARK2 Antibody / Parkinson Disease Protein 2 Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Parkin / PARK2 was used as the immunogen for the PARK2 antibody.

Storage

Store the PARK2 antibody at -20oC.

Alternate Names

PARK2 antibody, Parkinson Disease Protein 2 antibody, Parkin antibody, PRKN antibody, Parkinson Disease 2 antibody, E3 Ubiquitin Ligase Parkin antibody

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