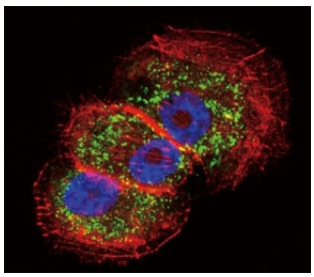
PRKN Antibody / Parkin RBR E3 Ubiquitin Ligase Antibody (F49621)

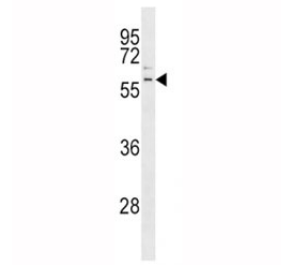
Catalog No.	Formulation	Size
F49621-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F49621-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

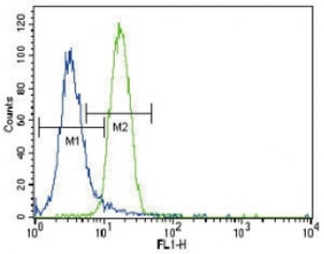
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	O60260
Applications	Western blot: 1:1000 Immunofluorescence: 1:10-1:50 Flow Cytometry: 1:10-1:50 IHC (Paraffin): 1:50-1:100
Limitations	This PRKN Antibody / Parkin RBR E3 Ubiquitin Ligase Antibody is available for research use only.



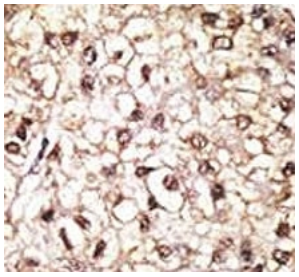
PRKN Antibody Human NCI-H460 Lung Cancer Cell IF. Confocal immunofluorescence analysis of human NCI-H460 lung cancer cells was performed with PRKN Antibody followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments were labeled with Alexa Fluor 555 Phalloidin (red), and nuclei were counterstained with DAPI (blue). PRKN/Parkin staining is observed as prominent punctate cytoplasmic and perinuclear signal. This PRKN Antibody demonstrates cellular localization of Parkin RBR E3 ubiquitin ligase in human NCI-H460 lung cancer cells.



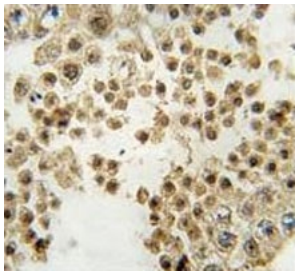
PRKN Antibody Human K562 Leukemia Cell WB. Western blot analysis of human K562 leukemia cell lysate was performed with PRKN Antibody. A specific band is detected at approximately 55-60 kDa, within the expected molecular weight range of 50-60 kDa for Parkin. Multiple smaller isoforms of Parkin have also been reported. This PRKN Antibody demonstrates detection of Parkin RBR E3 ubiquitin ligase in human K562 leukemia cells.



PRKN Antibody Human NCI-H460 Lung Cancer Cell FACS. Flow cytometry analysis of human NCI-H460 lung cancer cells was performed with PRKN Antibody followed by FITC-conjugated goat anti-rabbit secondary antibody. PRKN/Parkin staining (green, right histogram) shows a clear fluorescence shift compared with the negative control (blue, left histogram), demonstrating positive detection of the target protein. This PRKN Antibody demonstrates detection of Parkin RBR E3 ubiquitin ligase in human NCI-H460 lung cancer cells.



PRKN Antibody Human Hepatocellular Carcinoma IHC. IHC staining of FFPE human hepatocellular carcinoma tissue was performed with PRKN Antibody. Positive PRKN/Parkin staining is observed predominantly in the cytoplasm of tumor cells. This PRKN Antibody demonstrates cellular localization of Parkin RBR E3 ubiquitin ligase in human hepatocellular carcinoma tissue.



PRKN Antibody Human Testis IHC. IHC staining of FFPE human testis tissue was performed with PRKN Antibody. Positive PRKN/Parkin staining is observed in cells within the seminiferous tubules, with predominantly cytoplasmic signal. This PRKN Antibody demonstrates localization of Parkin RBR E3 ubiquitin ligase in human testis tissue.

Description

PRKN Antibody / Parkin RBR E3 Ubiquitin Ligase Antibody detects Parkin, an E3 ubiquitin ligase encoded by the PRKN gene and historically designated PARK2. Parkin belongs to the RING-between-RING (RBR) family of ubiquitin ligases and participates in ubiquitin-dependent regulation of proteins and organelles. It is particularly well studied for its role in mitochondrial quality control and PINK1-Parkin-mediated mitophagy, as well as its association with inherited forms of Parkinson disease.

Under basal conditions, Parkin is maintained primarily in an autoinhibited state. Mitochondrial damage and loss of membrane potential lead to stabilization of the kinase PINK1 on the outer mitochondrial membrane. PINK1 phosphorylates ubiquitin and Parkin, promoting activation and recruitment of Parkin to damaged mitochondria. A PRKN Antibody can therefore support studies examining Parkin expression and localization within this mitochondrial stress-response pathway.

Once activated, Parkin ubiquitinates numerous proteins associated with the outer mitochondrial membrane. These ubiquitin signals contribute to recruitment of downstream machinery involved in the recognition and removal of dysfunctional mitochondria through mitophagy. This pathway helps maintain mitochondrial homeostasis and is widely studied in the context of cellular stress, autophagy, mitochondrial dynamics and neuronal survival.

PRKN is also an important target in neurodegeneration research. Pathogenic variants in the gene are associated with autosomal recessive juvenile and early-onset parkinsonism. Impaired Parkin function can disrupt ubiquitin signaling and mitochondrial quality control, providing an important molecular connection between mitochondrial dysfunction and mechanisms contributing to neuronal degeneration. Parkin is consequently investigated alongside PINK1 and other regulators of mitophagy, oxidative stress and mitochondrial homeostasis.

NSJ Bioreagents offers PRKN Antibody reagents for investigating Parkin expression and function. A Parkin RBR E3 Ubiquitin Ligase Antibody can support research into ubiquitination, PINK1-Parkin signaling, mitophagy, mitochondrial quality control, Parkinson disease and molecular mechanisms associated with neurodegeneration.

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

Titration of the PRKN Antibody / Parkin RBR E3 Ubiquitin Ligase Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 387-417 from the human protein was used as the immunogen for this Parkin / PRKN antibody.

Storage

Aliquot the Parkin / PRKN antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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