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Datasheet for 600-401-GU5

PINK1 truncated Antibody

Overview

Description:	Anti-PINK1 truncated (RABBIT) Antibody - 600-401-GU5
Item No.:	600-401-GU5
Size:	100 µg
Applications:	ELISA, IF, WB, FC
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	PINK1 (PTEN induced putative kinase 1) belongs to the protein kinase superfamily and Ser/Thr protein kinase family. PINK1 protects against mitochondrial dysfunction during cellular stress by phosphorylating mitochondrial proteins. It is involved in the clearance of damaged mitochondria via selective autophagy (mitophagy) by mediating activation and translocation of PARK2. Targets PARK2 to dysfunctional depolarized mitochondria through the phosphorylation of MFN2. Activates PARK2 in 2 steps: (1) by mediating phosphorylation at Ser-65 of PARK2 and (2) mediating phosphorylation of ubiquitin, converting PARK2 to its fully-active form. PINK1 interacts with PARK2 and FBXO7 and forms a complexes with PARK2 and PARK7. PINK1 is associated with Parkinson disease 6 (PARK6). Anti-PINK1 Antibody is useful for researcher interested in neurological research, neurodegenerative disorders, Pink/Parkin Mediated Mitophagy, and Parkinsons Disease Pathway.
Synonyms:	rabbit anti-PINK1 antibody, Serine/threonine-protein kinase PINK1 (mitochondrial), BRPK, PTEN-induced putative kinase protein 1, PTEN-induced kinase
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	PINK1
Reactivity:	Human, Mouse

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-PINK1 truncated antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a C-Term portion of human PINK1 conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This affinity purified antibody is directed against human PINK1. This product was affinity purified from monospecific antiserum by immunoaffinity purification. Blast analysis of the sequence of the immunogen shows 100% identity with human and 93% identity to mouse.
Relevant Links:	• GeneID - 65018 • NCBI - NP_115785.1 • UniProtKB - Q9BXM7

Application Details

Tested Applications:	ELISA, IF, WB
Suggested Applications:	FC (Based on references)
Application Note:	Anti-PINK1 truncated Antibody has been tested in Western Blot, Immunofluorescence, and ELISA. Positive controls were recombinant PINK1 protein and overexpressed PINK1 transfected HEK293 @ 1µg/mL in western blot. Expect a lower strength band at 62.7 kDa in western blot using appropriate lysates. PINK1 truncated antibody strongly detects endogenously truncated PINK1 protein, seen at ~30kDa. PINK1 is highly phosphorylated and degrades rapidly which may cause additional banding in western blot. Positive control cell lines for immunofluorescence assays are NIH3T3 (p/n W10-000-358). Although not tested, this antibody is likely functional in immunohistochemistry, flow cytometry, and immunoprecipitation.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
FC:	User Optimized
IF:	20 µg/mL
IHC:	1:200
IP:	User Optimized
WB:	1µg/mL

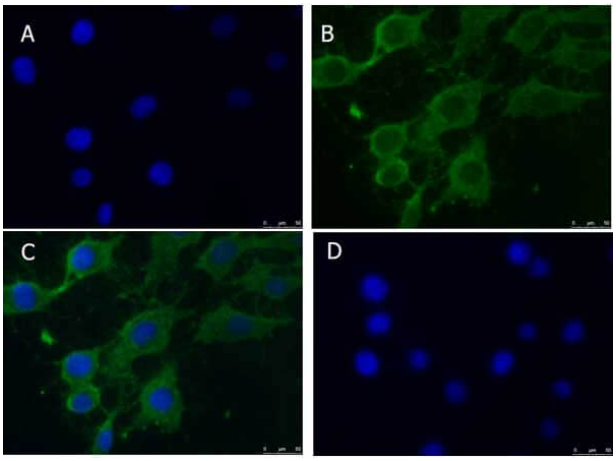
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.02 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

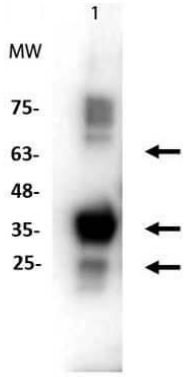
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

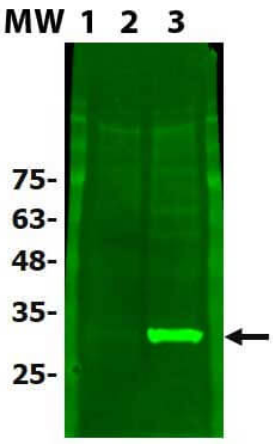
Images



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Rabbit anti-PINK1 truncated antibody. Cell line: NIH 3T3 (p/n W10-000-358). Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: PINK1 truncated antibody at 20 µg/mL for overnight at 4°C. Secondary antibody: Anti-RABBIT IgG DyLight™ 488 Conjugated Preadsorbed (p/n 611-741-127) at 5 ug/ml for 2 hrs at RT. Localization: PINK1 is mitochondrial and cytoplasmic. Staining: PINK1 as green fluorescent signal with DAPI (blue) nuclear counterstain.



Western Blot
Western Blot of Rabbit anti-PINK1 truncated antibody. Lane 1: recombinant PINK1. Load: 1 µg per lane. Primary antibody: PINK1 truncated antibody at 1:1000 for overnight at 4°C. Secondary antibody: rabbit secondary HRP antibody p/n (611-103-122) at 1:70,000 for 45 min at RT. Block: Odyssey blocking buffer overnight at 4°C. Predicted/Observed size: ~62, 30/~30 kda for PINK1. Other band(s): PINK1 phosphorylates and experiences rapid degradation causing various bands on WB.



Western Blot
Western Blot of Rabbit anti-PINK1 truncated antibody. Lane 1: MW ladder (opal pre-stained) p/n (MB-210-0500). Lane 2: HEK293T untransfected lysate (W09-001-GX5). Lane 3: PINK1 -overexpressing 293T. Load: 10 µg per lane. Primary antibody: PINK1 truncated antibody at 1:1000 for overnight at 4°C. Secondary antibody: Anti-RABBIT IgG (H&L) (DONKEY) Antibody DyLight™ 488 Conjugated p/n (611-741-127) at 1:70,000 for 45 min at RT. Block: Odyssey blocking buffer overnight at 4°C. Predicted/Observed size: ~62, 30/~30 kda for PINK1.

References

- Chen, PM et al. CD38 reduces mitochondrial fitness and cytotoxic T cell response against viral infection in lupus patients by suppressing mitophagy. *Science Advances* (2022)

Disclaimer

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