

PINK1 Polyclonal Antibody

Catalog Number PA1-16604

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human, Mouse, Rat
Host/Isotope	Rabbit / IgG	Published species	Not Applicable
Class	Polyclonal	Tested Applications	
Type	Antibody	Western Blot (WB)	Dilution * 2 ug/mL
Immunogen	Synthetic peptide corresponding to the N-terminal residues 1-50 of human PINK1.	Immunocytochemistry (ICC/IF)	1:100
Conjugate	Unconjugated	<div>* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.</div>	
Form	Liquid		
Concentration	1 mg/mL		
Purification	Antigen affinity chromatography		
Storage buffer	PBS		
Contains	0.02% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Background/Target Information

PINK1 (PTEN-induced putative kinase 1) protects from mitochondrial dysfunction in cells by conferring different autophosphorylation activity to mitochondrial genes. The kinase domain of PINK1 appears to be critical in its protective effects. Mitochondrial proteins are critical for the regulation of cellular energy and adaptation to stress. Particularly in brain cells, mitochondrial demand is extraordinarily high, in order to accommodate aerobic and anaerobic support of high energy processes. When mitochondrial structure and/or function is disrupted in the brain, neurodegenerative diseases like Parkinson's disease are triggered.

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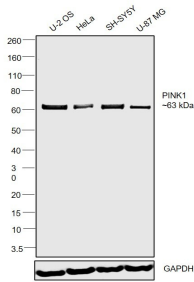
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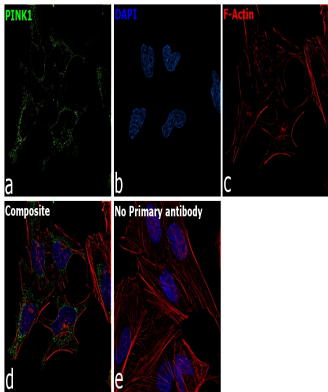
PINK1 Antibody (PA1-16604) in WB

Western blot was performed using Anti-PINK1 Polyclonal Antibody (Product # PA1-16604) and a 63kDa band corresponding to PINK1 was observed across the cell lines tested. Whole cell extracts (30 µg lysate) of U-2 OS (Lane 1), HeLa (Lane 2), SH-SY5Y (Lane 3) and U-87 MG (Lane 4) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0321BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # LC2001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody at 1:1000 dilution and detected by chemiluminescence with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Reagent Kit (Product # WP20005).



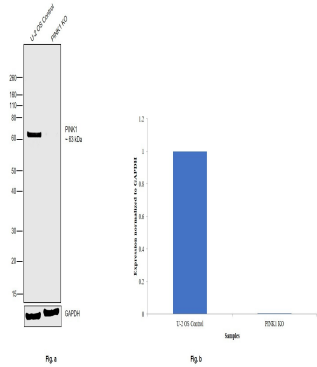
PINK1 Antibody (PA1-16604) in ICC/IF

Immunofluorescence analysis of PINK1 was performed using 70% confluent log phase HeLa cells. The cells were fixed with 4% paraformaldehyde for 15 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with PINK1 Polyclonal Antibody (Product # PA1-16604) at 1:100 dilution in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A27034, (1:2000 dilution), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b:Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300 dilution). Panel d represents the merged image showing Mitochondrial localization. Panel e represents control HeLa cells with no primary antibody to assess background. The images were captured at 60X magnification.



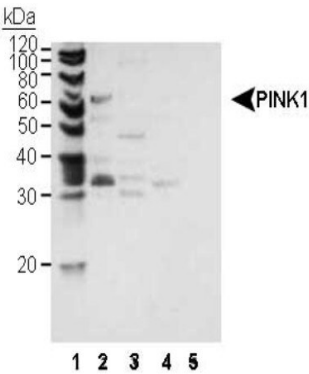
PINK1 Antibody (PA1-16604) in WB

Western blot analysis of PINK1 was performed by loading 30 µg of U-2 OS (Lane 1), U-2 OS - PINK1 knockout (Lane 2) Whole cell extracts. The blot was probed with Anti-PINK1 Polyclonal Antibody (Product # PA1-16604,1:1000 dilution) and Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 1:4000 dilution). Loss of signal upon CRISPR mediated knockout (KO) confirms that antibody is specific to PINK1.



PINK1 Antibody (PA1-16604) in WB

Western blot analysis of PINK1 in 20 µg MES cell Mitochondria, MES cytosol, MES nuclear. Samples were incubated in PINK1 polyclonal antibody (Product # PA1-16604). Lane 1: molecular weight marker; Lane 2: MES cell Mitochondria with a band at the observed molecular weight of 63 kDa; Lane 3: MES cytosol; Lane 4: MES nuclear as negative control; Lane 5: Purified human cytochrome C (0.1 µg) as PINK1 negative control.



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