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DJ-1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6407a

Specification

DJ-1 Antibody (N-term) - Product Information

Application	**WB, IF,E**
Primary Accession	Q99497
Other Accession	Q99LX0, Q5XJ36, Q5E946
Reactivity	**Human, Mouse**
Predicted	**Bovine, Zebrafish**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit Ig**
Clone Names	**RB8160**
Calculated MW	**19891**
Antigen Region	**1-30**

DJ-1 Antibody (N-term) - Additional Information

Gene ID 11315

Other Names
Protein DJ-1, 34--, Oncogene DJ1, Parkinson disease protein 7, PARK7

Target/Specificity
This DJ-1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human DJ-1.

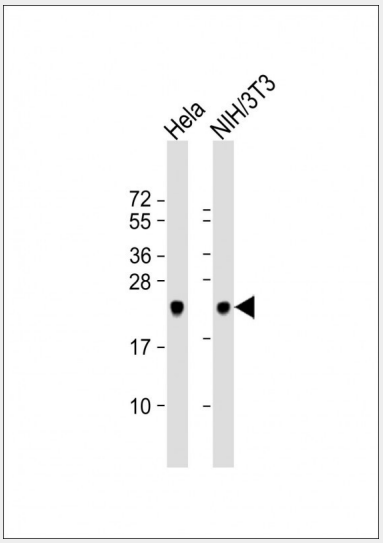
Dilution
WB~~1:2000
IF~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

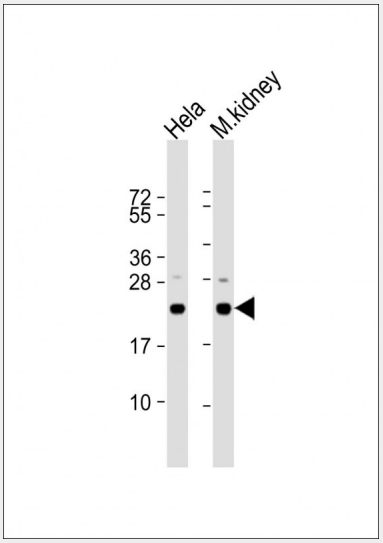
Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
DJ-1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

DJ-1 Antibody (N-term) - Protein Information



All lanes : Anti-Park7 (DJ-1) N-term at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: NIH/3T3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 20 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-Park7 (DJ-1) N-term at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: mouse kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 20 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Name PARK7

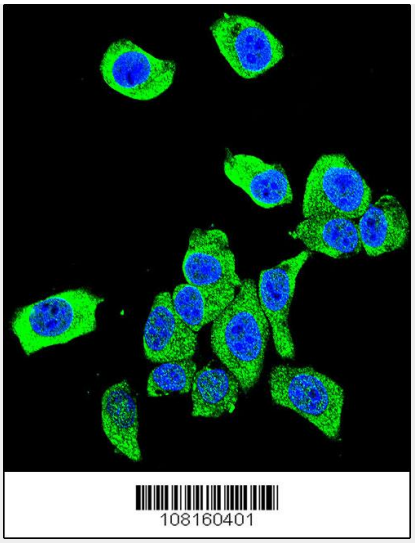
Function
Protects cells against oxidative stress and cell death. Plays a role in regulating expression or stability of the mitochondrial uncoupling proteins SLC25A14 and SLC25A27 in dopaminergic neurons of the substantia nigra pars compacta and attenuates the oxidative stress induced by calcium entry into the neurons via L-type channels during pacemaking. Eliminates hydrogen peroxide and protects cells against hydrogen peroxide-induced cell death. Following removal of a C-terminal peptide, displays protease activity and enhanced cytoprotective action against oxidative stress-induced apoptosis. Stabilizes NFE2L2 by preventing its association with KEAP1 and its subsequent ubiquitination. Binds to OTUD7B and inhibits its deubiquitinating activity. Enhances RELA nuclear translocation. Binds to a number of mRNAs containing multiple copies of GG or CC motifs and partially inhibits their translation but dissociates following oxidative stress. Required for correct mitochondrial morphology and function and for autophagy of dysfunctional mitochondria. Regulates astrocyte inflammatory responses. Acts as a positive regulator of androgen receptor-dependent transcription. Prevents aggregation of SNCA. Plays a role in fertilization. Has no proteolytic activity. Has cell-growth promoting activity and transforming activity. May function as a redox-sensitive chaperone. May regulate lipid rafts-dependent endocytosis in astrocytes and neuronal cells.

Cellular Location
Cell membrane; Lipid-anchor. Cytoplasm. Nucleus. Membrane raft. Mitochondrion. Note=Under normal conditions, located predominantly in the cytoplasm and, to a lesser extent, in the nucleus and mitochondrion. Translocates to the mitochondrion and subsequently to the nucleus in response to oxidative stress and exerts an increased cytoprotective effect against oxidative damage. Detected in tau inclusions in brains from neurodegenerative disease patients. Membrane raft localization in astrocytes and neuronal cells requires palmitoylation

Tissue Location
Highly expressed in pancreas, kidney, skeletal muscle, liver, testis and heart. Detected at slightly lower levels in placenta and brain. Detected in astrocytes, Sertoli cells, spermatogonia, spermatids and spermatozoa

DJ-1 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.



Confocal immunofluorescent analysis of DJ-1 Antibody (N-term)(Cat#AP6407a) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).DAPI was used to stain the cell nuclear (blue).

DJ-1 Antibody (N-term) - Background

Park 7 acts as positive regulator of androgen receptor-dependent transcription, and may function as redox-sensitive chaperone and as sensor for oxidative stress, as well as preventing aggregation of SNCA. This protein has been shown to protect neurons against oxidative stress and cell death, and to play a role in fertilization. Park7 is detected in tau inclusions in brains from neurodegenerative disease patients, and is generally highly expressed in pancreas, kidney, skeletal muscle, liver, testis and heart, with detectable levels in placenta, brain, astrocytes, Sertoli cells, spermatogonia, spermatids and spermatozoa. Defects in Park7 are the cause of autosomal recessive early-onset Parkinson disease 7 (PARK7), a form of Parkinson disease characterized by onset before 40 years, slow progression and initial good response to levodopa.

DJ-1 Antibody (N-term) - References

Kim, R.H., et al., Cancer Cell 7(3):263-273 (2005). Shinbo, Y., et al., Int. J. Oncol. 26(3):641-648 (2005). Takahashi-Niki, K., et al., Biochem. Biophys. Res. Commun. 320(2):389-397 (2004). Hering, R., et al., Hum. Mutat. 24(4):321-329 (2004). Maraganore, D.M., et al., Neurology 63(3):550-553 (2004).

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture