

HRP anti-DJ-1 (PARK7) Antibody

Catalog# / Size	851503 / 25 µg 851504 / 100 µg
Clone	A16125E
Regulatory Status	RUO
Other Names	Protein DJ-1, oncogene, DJ1, PARK7, Parkinson disease protein 7, Parkinsonism-Associated Deglycase, HEL-S-67p, epididymis secretory sperm binding protein Li 67p, GATD2, Protein Deglycase DJ-1
Isotype	Mouse IgG2b, κ
Description	DJ-1 (PARK7) belongs to the peptidase C56 family of proteins and is expressed in almost all human cells and tissues. DJ-1 is a multi-functional protein associated with mitochondrial function, mitophagy, and male fertility. It acts as an oxidative stress sensor, redox-sensitive chaperone and protease. Therefore, the protein has an important role in cell protection against oxidative stress and cell death. DJ-1 is also associated with prostate cancer, and specific mutations of the protein are linked to autosomal recessive, early onset Parkinson's disease.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant Human DJ-1
Formulation	This antibody is provided in 50% glycerol in aqueous buffered solutions with preservatives.
Preparation	The antibody was purified by affinity chromatography and conjugated with HRP under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	Upon receipt, the antibody solution should be stored undiluted at -20°C, and protected from prolonged exposure to light.
Application	WB - Quality tested IHC-P - Verified
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . For Western blotting, the suggested use of this reagent is 0.2 - 1.0 µg per ml. For immunohistochemistry, a concentration range of 1.0 - 5.0 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
RRID	AB_2734642 (BioLegend Cat. No. 851503) AB_2734643 (BioLegend Cat. No. 851504)

Antigen Details

Structure	Human DJ-1 is a 189 amino acid protein with an apparent molecular weight of 20 kD. The protein consists of 7 β-strands and 7 α-helices, and exists as a dimer.
Distribution	Tissue distribution: Highly expressed in pancreas, kidney, skeletal muscle, liver, testis and heart. Detected at slightly lower levels in brain and placenta. Cellular distribution: Mitochondria, nucleus, cytosol, plasma membrane, and extracellular.
Function	DJ-1 functions as an oxidative stress sensor and redox-sensitive chaperone.
Interaction	PINK1, Parkin, EFCAB6/DJBP, OTUD7B, BBS1, HIPK1, CLCF1 and MTERF.

Biology Area	Cell Biology, Mitochondrial Function, Neurodegeneration, Neuroinflammation, Neuroscience, Neuroscience Cell Markers, Protein Misfolding and Aggregation, Protein Trafficking and Clearance
Molecular Family	Mitochondrial Markers
Antigen References	<ol style="list-style-type: none"> 1. Saito Y. 2014. <i>J. Clin. Biochem. Nutr.</i> 54(3):138-44. PubMed 2. Ariga H, et al. 2013. <i>Oxid. Med. Cell Longev.</i> 2013:683920. PubMed 3. Bonifati V, et al. 2003. <i>Science</i> (5604): 256–9. PubMed
Gene ID	11315

Related Protocols

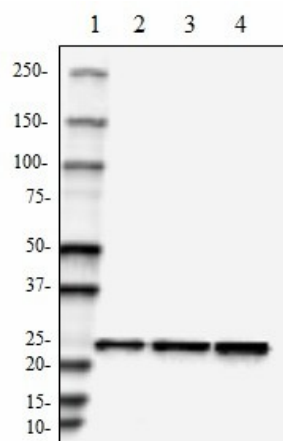
[Western Blotting Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

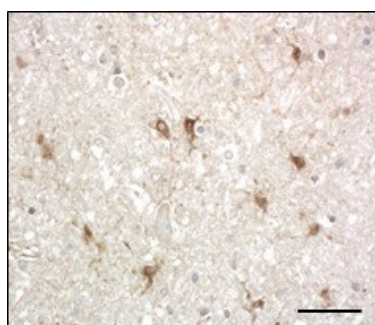
Other Formats

Purified anti-DJ-1 (PARK7), HRP anti-DJ-1 (PARK7)

Product Data



Western blot of HRP anti-DJ-1 (PARK7) antibody (clone A16125E). Lane 1: Molecular weight marker; Lane 2: 20 µg of recombinant human DJ-1 (PARK7) protein (Cat. No. 843401); Lane 3: 20 µg of normal human brain lysate; Lane 4: 20 µg of Parkinson's disease brain lysate. The blot was incubated with 1.0 µg/mL of the primary antibody for 1 hour at room temperature. Enhanced chemiluminescence (Cat. No. 426302) was used as the detection system.



IHC staining of HRP anti-DJ-1 (PARK7) antibody (clone A16125E) on formalin-fixed paraffin-embedded normal human brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R (Cat. No. 928602), the tissue was incubated with 1 µg/mL of the primary antibody for 1 hour at room temperature. DAB was used for detection followed by hematoxylin and bluing solution counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm

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