DJ-1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	DJ-1, Polyclonal Antibody
Full Product Name	DJ-1 Antibody
Product Gene Name	anti-DJ-1 antibody
Product Synonym Names	ONCOGENE DJ1; PARK7 AMYOTROPHIC LATERAL SCLEROSIS-PARKINSONISM/DEMENTIA COMPLEX 2; PARK7 GENE
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Specificity	The antibody detects endogenous levels of total DJ-1 protein.
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
Molecular Weight	19,891 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (8021714..8045342). Location: 1p36.23
OMIM	168600
3D Structure	ModBase 3D Structure for Q99497
Immunogen	Synthesized peptide derived from human DJ-1.
Product Categories/Family for anti-DJ-1 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-DJ-1 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)
Application Notes for anti-DJ-1 antibody	WB: 1:500~1:3000 IHC: 1:50~1:100 IF: 1:100~1:500

Related Product Information for anti-DJ-1 antibody	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. May act as an atypical peroxiredoxin-like peroxidase that scavenges hydrogen peroxide. 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.
Product References and Citations for anti-DJ-1 antibody	Nobutaka Hattori, Hum. Mol. Genet., Jan 2005; 14: 71 - 84.Raymond H. Kim, PNAS, Apr 2005; 102: 5215 - 5220.Rina Bandopadhyay, Brain, Feb 2004; 127: 420 - 430.Nan Zhong, J. Biol. Chem., Jul 2006; 281: 20940 - 20948
Other Notes	Small volumes of anti-DJ-1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for DJ-1 purchase	MBS8586945 is an antibody targeting DJ-1. Also known as DJ-1 Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DJ-1. It may not necessarily be applicable to this product.

NCBI GI #	183227678
NCBI GeneID	11315
NCBI Accession #	NP_001116849.1
UniProt Primary Accession #	Q99497
UniProt Secondary Accession #	O14805; Q6DR95; Q7LFU2; B2R4Z1
UniProt Related Accession #	Q99497
GenBank Nucleotide #	NM_001123377.1
NCBI Official Full Name	protein DJ-1
NCBI Official Synonym Full Names	parkinson protein 7
NCBI Official Symbol	PARK7
NCBI Official Synonym Symbols	DJ1; DJ-1
UniProt Protein Name	Protein DJ-1
UniProt Synonym Protein Names	Oncogene DJ1; Parkinson disease protein 7
Protein Family	DJ-1 protein
UniProt Gene Name	PARK7
UniProt Entry Name	PARK7_HUMAN
NCBI Protein Information	protein DJ-1; oncogene DJ1; Parkinson disease (autosomal recessive, early onset) 7

NCBI Summary for DJ-1	The product of this gene belongs to the peptidase C56 family of proteins. It acts as a positive regulator of androgen receptor-dependent transcription. It may also function as a redox-sensitive chaperone, as a sensor for oxidative stress, and it apparently protects neurons against oxidative stress and cell death. Defects in this gene are the cause of autosomal recessive early-onset Parkinson disease 7. Two transcript variants encoding the same protein have been identified for this gene. [provided by RefSeq, Jul 2008]
UniProt Comments for DJ-1	DJ-1: associated with autosomal recessive early onset parkinsonism. Involved in the oxidative stress response. Three cysteines in DJ-1 may be oxidized to cysteine sulphonic acid in the cellular response to H2O2. Loss of DJ-1 function may lead to neurodegeneration. Protein type: Nuclear receptor co-regulator; EC 3.4.-.-; Tumor suppressor; Transcription regulation Chromosomal Location of Human Ortholog: 1p36.23 Cellular Component: PML body; mitochondrion; axon; mitochondrial matrix; cytoplasm; plasma membrane; mitochondrial intermembrane space; nucleus; chromatin; cytosol; mitochondrial respiratory chain complex I; lipid raft Molecular Function: identical protein binding; oxidoreductase activity, acting on peroxide as acceptor; protein homodimerization activity; transcription coactivator activity; mercury ion binding; transcription factor binding; peptidase activity; mRNA binding; protein binding; copper ion binding; enzyme binding; androgen receptor binding; peroxiredoxin activity; cytokine binding; double-stranded DNA binding; glyoxalase III activity; superoxide dismutase copper chaperone activity; kinase binding; single-stranded DNA binding; receptor binding Biological Process: negative regulation of protein export from nucleus; adult locomotory behavior; protein deglycosylation; membrane hyperpolarization; proteolysis; glycolate biosynthetic process; positive regulation of interleukin-8 production; negative regulation of protein amino acid phosphorylation; regulation of mitochondrial membrane potential; single fertilization; regulation of neuron apoptosis; enzyme active site formation via L-cysteine sulfinic acid; dopamine uptake; negative regulation of neuron apoptosis; inflammatory response; negative regulation of protein binding; mitochondrion organization and biogenesis; protein stabilization; activation of protein kinase B; regulation of TRAIL receptor biosynthetic process; detoxification of copper ion; negative regulation of protein sumoylation; positive regulation of peptidyl-serine phosphorylation; negative regulation of proteasomal ubiquitin-dependent protein catabolic process; methylglyoxal catabolic process to D-lactate; membrane depolarization; positive regulation of protein kinase B signaling cascade; detoxification of mercury ion; regulation of inflammatory response; Ras protein signal transduction; negative regulation of ubiquitin-protein ligase activity; hydrogen peroxide metabolic process; lactate biosynthetic process; autophagy; negative regulation of protein kinase activity; positive regulation of transcription factor activity; negative regulation of protein ubiquitination; positive regulation of transcription from RNA polymerase II promoter; negative regulation of apoptosis Disease: Parkinson Disease 7, Autosomal Recessive Early-onset
Research Articles on DJ-1	**1.** promotes angiogenesis and osteogenesis via activation of FGF receptor-1 signaling
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