

ARG56887 anti-PARK7 / DJ1 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PARK7 / DJ1
Tested Reactivity	Hu, Ms
Tested Application	ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PARK7 / DJ1
Species	Human
Immunogen	Recombinant fusion protein corresponding to aa. 1-189 of Human PARK7 / DJ1 (NP_001116849.1).
Conjugation	Un-conjugated
Alternate Names	DJ1; DJ-1; Oncogene DJ1; EC 3.5.1.-; Parkinson disease protein 7; HEL-S-67p; EC 3.1.2.-; Protein deglycase DJ-1

Application Instructions

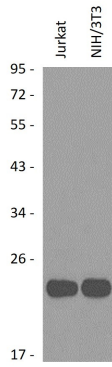
Predict Reactivity Note	Rat						
Application table	<table><thead><tr><th>Application</th><th>Dilution</th></tr></thead><tbody><tr><td>ICC/IF</td><td>1:50 - 1:200</td></tr><tr><td>WB</td><td>1:500 - 1:2000</td></tr></tbody></table>	Application	Dilution	ICC/IF	1:50 - 1:200	WB	1:500 - 1:2000
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ICC/IF	1:50 - 1:200						
WB	1:500 - 1:2000						
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.						
Positive Control	Jurkat and NIH/3T3						

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

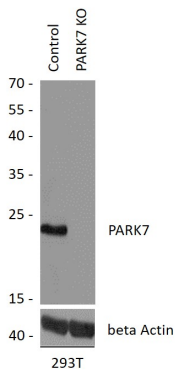
Bioinformation

Gene Symbol	PARK7
Gene Full Name	parkinson protein 7
Background	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]
Function	Protein deglycase that repairs methylglyoxal- and glyoxal-glycated amino acids and proteins, and releases repaired proteins and lactate or glycolate, respectively. Deglycates cysteines, arginines and lysines residues in proteins, and thus reactivates these proteins by reversing glycation by glyoxals. Acts on early glycation intermediates (hemithioacetals and aminocarbinals), preventing the formation of advanced glycation endproducts (AGE). Plays an important role in cell protection against oxidative stress and cell death acting as oxidative stress sensor and redox-sensitive chaperone and protease; functions probably related to its primary function. It is involved in neuroprotective mechanisms like the stabilization of NFE2L2 and PINK1 proteins, male fertility as a positive regulator of androgen signaling pathway as well as cell growth and transformation through, for instance, the modulation of NF-kappa-B signaling pathway. Its involvement in protein repair could also explain other unrelated functions. Eliminates hydrogen peroxide and protects cells against hydrogen peroxide-induced cell death. Required for correct mitochondrial morphology and function as well as for autophagy of dysfunctional mitochondria. 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. Regulates astrocyte inflammatory responses, may modulate lipid rafts-dependent endocytosis in astrocytes and neuronal cells. Binds to a number of mRNAs containing multiple copies of GG or CC motifs and partially inhibits their translation but dissociates following oxidative stress. Metal-binding protein able to bind copper as well as toxic mercury ions, enhances the cell protection mechanism against induced metal toxicity. [UniProt]
Highlight	Related products: PARK7 antibodies ; Anti-Rabbit IgG secondary antibodies ; Related news: Astrocyte-to-neuron conversion for Parkinson's disease treatment
Calculated Mw	20 kDa
PTM	Sumoylated on Lys-130 by PIAS2 or PIAS4; which is enhanced after ultraviolet irradiation and essential for cell-growth promoting activity and transforming activity. Cys-106 is easily oxidized to sulfinic acid. Undergoes cleavage of a C-terminal peptide and subsequent activation of protease activity in response to oxidative stress. [UniProt]
Cellular Localization	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. [UniProt]



ARG56887 anti-PARK7 / DJ1 antibody WB image

Western blot: 25 µg of Jurkat and NIH/3T3 cell lysates stained with ARG56887 anti-PARK7 / DJ1 antibody at 1:1000 dilution.



ARG56887 anti-PARK7 / DJ1 antibody WB image

Western blot: 25 µg of extracts from normal (Control) and PARK7 knockout (KO) 293T cells, using ARG56887 anti-PARK7 / DJ1 antibody at 1:1000 dilution.