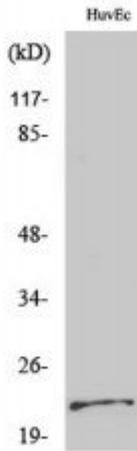


## Anti-PARK7 antibody



<b>Description</b>	Rabbit polyclonal to PARK7.
<b>Model</b>	STJ94957
<b>Host</b>	Rabbit
<b>Reactivity</b>	Human, Mouse
<b>Applications</b>	ELISA, IF, IHC, WB
<b>Immunogen</b>	Synthesized peptide derived from human PARK7
<b>Immunogen Region</b>	40-120 aa, Internal
<b>Gene ID</b>	<a href="#">11315</a>
<b>Gene Symbol</b>	<a href="#">PARK7</a>
<b>Dilution range</b>	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:10000
<b>Specificity</b>	PARK7 Polyclonal Antibody detects endogenous levels of PARK7 protein.
<b>Tissue Specificity</b>	Highly expressed in pancreas, kidney, skeletal muscle, liver, testis and heart. Detected at slightly lower levels in placenta and brain (at protein level). Detected in astrocytes, Sertoli cells, spermatogonia, spermatids and spermatozoa.
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Note</b>	For Research Use Only (RUO).
<b>Protein Name</b>	Protein/nucleic acid deglycase DJ-1 Maillard deglycase Oncogene DJ1 Parkinson disease protein 7 Parkinsonism-associated deglycase Protein DJ-1 DJ-1

<b>Molecular Weight</b>	22 kDa
<b>Clonality</b>	Polyclonal
<b>Conjugation</b>	Unconjugated
<b>Isotype</b>	IgG
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Concentration</b>	1 mg/ml
<b>Storage Instruction</b>	Store at -20°C, and avoid repeat freeze-thaw cycles.
<b>Database Links</b>	<a href="#">HGNC:16369</a> <a href="#">OMIM:168600</a>
<b>Alternative Names</b>	Protein/nucleic acid deglycase DJ-1 Maillard deglycase Oncogene DJ1 Parkinson disease protein 7 Parkinsonism-associated deglycase Protein DJ-1 DJ-1
<b>Function</b>	<p>Plays an important role in cell protection against oxidative stress and cell death acting as oxidative stress sensor and redox-sensitive chaperone and protease . 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 . In macrophages, interacts with the NADPH oxidase subunit NCF1 to direct NADPH oxidase-dependent ROS production, and protects against sepsis . Has been described as a protein deglycase that repairs methylglyoxal- and glyoxal-glycated amino acids and proteins, and releases repaired proteins and lactate or glycolate, respectively. Deglycates cysteine, arginine and lysine 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) . However, another work ascribes the deglycation activity to a TRIS buffer artifact .</p>
<b>Cellular Localization</b>	Cell membrane Cytoplasm Nucleus Membrane raft Mitochondrion. 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.

**Post-translational  
Modifications**

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.

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**St John's Laboratory Ltd**

**F** +44 (0)207 681 2580

**T** +44 (0)208 223 3081

**W** <http://www.stjohnslabs.com/>

**E** [info@stjohnslabs.com](mailto:info@stjohnslabs.com)