

Recombinant human Protein DJ-1

Catalog No: #AP71829



Package Size: #AP71829-1 20ug #AP71829-2 100ug #AP71829-3 1mg

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Description

Product Name	Recombinant human Protein DJ-1
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:1-188aaSequence Info:Partial
Other Names	Oncogene DJ1;Parkinson disease protein 7
Accession No.	Q99497
Uniprot	Q99497
GeneID	11315;
Calculated MW	46.8 kDa
Tag Info	N-terminal GST-tagged
Target Sequence	MASKRALVILAKGAEEMETVIPVDVMRRAGIKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKEGPDVVVLP GGNLGAQNLSESAAVKEILKEQENRGLIAAICAGPTALLAHEIGFGSKVTTHTPLAKDKMMNGGHYTYSENRV EKDGLILTSRGPPTSFEFALAIVEALNGKEVAAQVKAPLVK
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

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 (hithioacetals 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 involent 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 pacaking . 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 .

References

DJ-1, a novel oncogene which transforms mouse NIH3T3 cells in cooperation with ras. Nagakubo D., Taita T., Kitaura H., Ikeda M., Tamai K., Iguchi-Arigo S.M.M., Ariga H. *Biochem. Biophys. Res. Commun.* 231:509-513(1997) Research Topic: Apoptosis

Note: This product is for in vitro research use only