

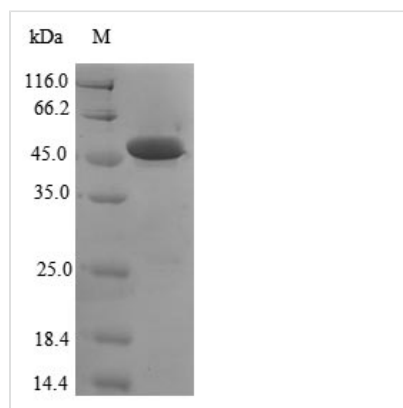


# Recombinant Human Parkinson disease protein 7 (PARK7), partial

<b>Product Code</b>	CSB-EP860342HU1
<b>Relevance</b>	<p>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 aminocarbonols), 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 involment 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 .</p>
<b>Abbreviation</b>	Recombinant Human PARK7 protein, partial
<b>Storage</b>	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.
<b>Uniprot No.</b>	Q99497
<b>Product Type</b>	Recombinant Proteins
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	<p>MASKRALVILAKGAEEMETVIPVDVMRRAGIKVTVAGLAGKDPVQCSRDDVICP  DASLEDAKKEGPDVVLPGGNLGAQNLSESAVKEILKEQENRKGLIAAICAG  PTALLAHEIGFGSKVTTHPLAKDKMMNGGHYTYSENVRVEKDGLILTSRGPPTS  FEFALAIVEALNGKEVAAQVKAPLVLK</p>



<b>Research Area</b>	Apoptosis
<b>Source</b>	E.coli
<b>Target Names</b>	PARK7
<b>Expression Region</b>	1-188aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal GST-tagged
<b>Mol. Weight</b>	46.8kDa
<b>Protein Length</b>	Partial

**Image**


(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

**Description**

Synthesizing the recombinant Human PARK7 protein generally involves integrating the DNA fragment that encodes the Human PARK7 protein (1-188aa) into a plasmid, introducing the recombinant plasmid into e.coli cells, followed by the selection and culturing of positive e.coli cells, induction of protein expression, and subsequent cell lysis. A N-terminal GST tag is fused to the protein. The protein is purified through affinity purification, and SDS-PAGE analysis is conducted to confirm the presence of the protein and determine its purity. The protein's purity surpasses 90%.

**Shelf Life**

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.