PARL Protein, Human (Cell-Free, Myc)

Cat. No.:	HY-P702414
Synonyms:	Presenilin-associated rhomboid-like protein, mitochondrial; Mitochondrial intramembrane cleaving protease PARL
Species:	Human
Source:	E. coli Cell-free
Accession:	Q9H300 (F53-K379)
Gene ID:	55486
Molecular Weight:	37.8 kDa

PROPERTIES

AA Sequence	F R K A P R K V E P R R S D P G T S G E A Y K R S A L I P P V E E T V F Y P S P Y P I R S L I K P L F F T V G F T G C A F G S A A I W Q Y E S L K S R V Q S Y F D G I K A D W L D S I R P Q K E G D F R K E I N K W W N N L S D G Q R T V T G I I A A N V L V F C L W R V P S L Q R T M I R Y F T S N P A S K V L C S P M L L S T F S H F S L F H M A A N M Y V L W S F S S S I V N I L G Q E Q F M A V Y L S A G V I S N F V S Y V G K V A T G R Y G P S L G A S G A I M T V L A A V C T K I P E G R L A I I F L P M F T F T A G N A L K A I I A M D T A G M I L G W K F F D H A A H L G G A L F G I W Y V T Y G H E L I W K N R E P L V K I W H E I R T N G P K K G G G S K
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	PARL emerges as a pivotal player in the intricate orchestration of cellular processes, particularly in the control of apoptosis during postnatal growth. Its essential role lies in the proteolytic processing of an antiapoptotic form of OPA1, preventing the

release of mitochondrial cytochrome c in response to intrinsic apoptotic signals. Additionally, PARL is indispensable for the maturation of PINK1, facilitating its transformation into the 52kDa mature form after cleavage by mitochondrial-processing peptidase (MPP). Notably, PARL exhibits versatility by mediating the cleavage of serine/threonine-protein phosphatase PGAM5 in damaged mitochondria, responding dynamically to the loss of mitochondrial membrane potential. Moreover, PARL contributes to the processing of CLPB, DIABLO/SMAC, STARD7, and TTC19, unveiling its multifaceted involvement in shaping mitochondrial function and morphology, with implications for apoptotic activity and cellular health.

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