

Recombinant Human E3 ubiquitin-protein ligase parkin(PARK2)

Catalog No: #AP70617

Package Size: #AP70617-1 20ug #AP70617-2 100ug #AP70617-3 1mg

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Description

Product Name	Recombinant Human E3 ubiquitin-protein ligase parkin(PARK2)
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:1-465aaSequence Info:Full Length
Other Names	Parkinson juvenile disease protein 2 ;Parkinson disease protein 2
Accession No.	O60260
Calculated MW	67.6 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	MIVFVRFNSSHGFPVEVDSDTSIFQLKEVVAKRQGV PADQLRVIFAGKELRNDWTVQNCDLDDQSSIVHIVQRP WRKGQEMNATGGDDPRNAAGGCEREPQSLTRVDLSSSVLPGDSVGLAVILHTDSRKDSPPAGSPAGRSIYN SFYVYCKGPCQRVQPGKLRVQCSTCRQATLTLTQGPSCWDDVLIPNRMSGECQSPHCPGTSAEFFFKCGAH PTSDKETSVALHLIATNSRNITCITCTDVRSPVLVFQCNSRHVICLDCFHLYCVTRLNDRQFVHDPQLGYSLPCV AGCPNSLIKELHHFRILGEEQYNRYQQYGAEECVLQMGGVLCPRPGCGAGLLPEPDQRKVTCEGNGNLGCG FAFCRECKEAYHEGECSAVFEASGTTTQAYRVDERAAEQARWEAASKETIKTTKPCPRCHVPVEKNGGCM HMKCPQPQCRLEWCWNCGCEWNRVCMGDHWFVDV
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

Functions within a multiprotein E3 ubiquitin ligase complex, catalyzing the covalent attachment of ubiquitin moieties onto substrate proteins, such as BCL2, SYT11, CCNE1, GPR37, RHOT1, MIRO1, MFN1, MFN2, STUB1, SNCAIP, SEPT5, TOMM20, USP30, ZNF746 and AIMP2 . Mediates monoubiquitination as well as 'Lys-6', 'Lys-11', 'Lys-48'-linked and 'Lys-63'-linked polyubiquitination of substrates depending on the context . Participates in the roval and,or detoxification of abnormally folded or damaged protein by mediating 'Lys-63'-linked polyubiquitination of misfolded proteins such as PARK7: 'Lys-63'-linked polyubiquitinated misfolded proteins are then recognized by HDAC6, leading to their recruitment to aggresomes, followed by degradation . Mediates 'Lys-63'-linked polyubiquitination of a 22KDA O-linked glycosylated isoform of SNCAIP, possibly playing a role in Lewy-body formation . Mediates monoubiquitination of BCL2, thereby acting as a positive regulator of autophagy . Promotes the autophagic degradation of dysfunctional depolarized mitochondria (mitophagy) by promoting the ubiquitination of mitochondrial proteins such as TOMM20, RHOT1, MIRO1 and USP30 . Preferentially assbles 'Lys-6-', 'Lys-11'- and 'Lys-63'-linked polyubiquitin chains following mitochondrial damage, leading to mitophagy . Mediates 'Lys-48'-linked polyubiquitination of ZNF746, followed by degradation of ZNF746 by the proteasome; possibly playing a role in the regulation of neuron death . Limits the production of reactive oxygen species (ROS). Regulates cyclin-E during neuronal apoptosis. In collaboration with CHPF isoform 2, may enhance cell viability and protect cells from oxidative stress . Independently of its ubiquitin ligase activity, protects from apoptosis by the transcriptional repression of p53,TP53 . May protect neurons against alpha synuclein toxicity, proteasomal dysfunction, GPR37 accumulation, and kainate-induced excitotoxicity . May play a role in controlling neurotransmitter trafficking at the presynaptic terminal and in calcium-dependent exocytosis. May represent a tumor suppressor gene

References

Evidence for the presence of full-length PARK2 mRNA and Parkin protein in human blood.Kasap M., Akpinar G., Sazci A., Idrisoglu H.A., Vahaboglu H.Neurosci. Lett. 460:196-200(2009)Research Topic:Apoptosis

Note: This product is for in vitro research use only and is not intended for use in humans or animals.