

Recombinant Human PAR14 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50763

Size: 10ug, 100ug

Protein Name: Protein mono-ADP-ribosyltransferase PARP14 (EC 2.4.2.-) (ADP-ribosyltransferase diphtheria toxin-like 8) (ARTD8) (B aggressive lymphoma protein 2) (Poly [ADP-ribose] polymerase 14) (PARP-14)

Synonym: PARP14, BAL2, KIAA1268

UniProt ID: Q460N5

UniProt Link: www.uniprot.org/uniprotkb/Q460N5/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1801 AA

Molecular Weight: 203 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAVPGSFPLLVEGSWGPDPKLNLTQLQMYFQSPKRSGGGECEVRQDPRSPSRFLVFFYPEDVRQ
KVLERNHVLVWQKGTFKLTQVLPATPDEIDHVFEEELLTKESKTKEDVKEPDVSEELDTKLPLDG
GLDKMEDIPCEENISSLVAFENLKANVTDIMLILLVENISGLSNDDFQVEIIRDFDVAVVTFQKHIDTIR
FVDDCTKHHSIKQLQLSPRLLEVTNIRVENLPPGADDYSLKLEFFENPYNGGGRVANVEYFPEESSAL
IEFFDRKVLDTIMATKLDFNKMPLSVFPYYASLGTALYGKEKPLIKLPAPFEESLDLPLWKFLQKKNHLI
EEINDEMRRCHCELTWSQLSGKVTIRPAATLVNEGRPRIKTWQADTSTLSSIRSKYKVNPIKVDPTM
WDTIKNDVKDDRILIEFDTLKEMVILAGKSEDVQSIEVQVRELIESTTQKIKREEQSLKEKMIISPGRYFL
LCHSSLLDHLTECEPEIEICYDRVTQHLCLKGPSADVYKAKCEIQEKVYTMAQKNIQVSPEIFQLQQV
NWKEFSKCLFIAQKILALYELEGGTTVLLTSCSSEALLEAEKQMLSALNYKRIEVENKEVLHGKWKGL
THNLLKKQNSSPNTVIINELTSETTAEVITGCVKEVNETYKLLFNFVEQNMKIERLVEVKPSLVIDYLKT
EKKLFWPKIKKVNQVSVFNPENKQKGILLTGSKTEVLKAVDIVKQVWDSVCVKSVDKPGAKQFFQ
DKARFYQSEIKRFLGCIYELQENEVMKEGGSPAGQKCFSTRTVLAPGVVLIVQQGDRLRPVDVVVNA
SNEDLKHYGGALAAALSKAAGPELQADCDQIVKREGRLLPGNATISKAGKLPYHHVIHVGPRWSGYE
APRCVYLLRRVQLSLCLAEKYKYRSIAIPAISSGVFGFPLGRCVETIVSAIKENFQFKDGHCLKEIYL
VDVSEKTVEAFAEAVKTVFKATLPDTAAPPLPPAAAGPGKTSWEKGSLVSPGGLQMLLVKEGVQN
AKTDVVVNSVPLDLVLSRGPLSKSLLEKAGPELQEELDTVGQGVAVSMGTVLKTSSWNLDCRYVLH
VVAPEWRNGSTSSLKIMEDIIRECMEITESLSLKSIAFFAIGTGNLGFKNIFAELIIESEVFKFSSKNQLK



TLQEVHFLHPSDHENIQAFSDEFARRANGNLVSDKIPKAKDTQGFYGTVSSPDSGVYEMKIGSIIFQ
VASGDITKEEADVIVNSTSNSFNLKAGVSKAILECAGQNVERECSSQQAQQRKNDYIITGGGFLRCKNII
HVIGGNDVKSSVSSVLQECEKKNYSSICLPAIGTGNAKQHPDKVAEAIIDAIEDFVQKGSASVKKVK
VVIFLPQVLDVFYANMCKREGTQLSSQQSVMSKLASFLGFSKQSPQKKNHLVLEKKTESATFRVCGE
NVTCEVEYAIWLQDLIEKEQCPYTSEDECIDFDEKEYQELNELQKKLNINISLDHKRPLIKVLGISRDV
MQARDEIEAMIKRVRlakeQESRADCISEFIEWQYNDNNTSHCFNKMTNLKLEDARREKKKTVDVKI
NHRHYTVNLNTYTATDTKGHSLSVQRLTKSKVDIPAHWSMDKQQNFCVVELLPSPDPEYNTVASKFN
QTCSHFRIEKIERIQNPDLWNSYQAKKKTMDAKNGQTMNEKQLFHGTDAGSVPHVNRNGFNRSYA
GKNAVAYGKGTYFAVNANYSANDTYSRPDANGRKHVYYVRVLTGIYTHGNHSLIVPPSKNPQNPTD
LYDTVTDNVHPSLFFAFYDYQAYPEYLITFRK

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Protein mono-ADP-ribosyltransferase PARP14 (EC 2.4.2.-) (ADP-ribosyltransferase diphtheria toxin-like 8) (ARTD8) (B aggressive lymphoma protein 2) (Poly [ADP-ribose] polymerase 14) (PARP-14) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: ADP-ribosyltransferase that mediates mono-ADP-ribosylation of glutamate residues on target proteins (PubMed:16061477, PubMed:18851833, PubMed:25043379, PubMed:27796300). In contrast to PARP1 and PARP2, it is not able to mediate poly-ADP-ribosylation (PubMed:25043379). Has been shown to catalyze the mono-ADP-ribosylation of STAT1 at 'Glu-657' and 'Glu-705', thus decreasing STAT1 phosphorylation which negatively regulates pro-inflammatory cytokine production in macrophages in response to IFNG stimulation (PubMed:27796300). However, the role of ADP-ribosylation in the prevention of STAT1 phosphorylation has been called into question and it has been suggested that the inhibition of phosphorylation may be the result of sumoylation of STAT1 'Lys-703' (PubMed:29858569). Mono-ADP-ribosylates STAT6; enhancing STAT6-dependent transcription (PubMed:27796300). In macrophages, positively regulates MRC1 expression in response to IL4 stimulation by promoting STAT6 phosphorylation (PubMed:27796300). Mono-ADP-ribosylates PARP9 (PubMed:27796300).

Subcellular Localization: Nucleus . Cytoplasm . Note=In steady state splenocytes the protein is mostly nuclear (By similarity). A minor proportion is detected in the cytoplasm (By similarity). In macrophages, mainly localizes to the cytoplasm (PubMed:27796300).

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.



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- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.