

Recombinant Mouse NLRC3 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51602

Size: 10ug, 100ug

Protein Name: Protein NLRC3

Synonym: Nlrc3

UniProt ID: Q5DU56

UniProt Link: www.uniprot.org/uniprotkb/Q5DU56/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1064 AA

Molecular Weight: 116 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MRRRYSHDPPGSFRETQVFGFRGEYGCKALVDLLAGKGSQLLQVRDKMPDSPLGSQS NESRIPKH
SEALLSRVGNPELGSPSHRLASLMLVEGLTDLQLKEHDFTQVEATRQVWHPARVITLDRFLPLSR
VSIPPRVSLTIGVAGVGKTTLVRFVHCWARGQVGKGF SRVLP LTFRD LNTYEKLSADR LIQSIFSSIG
EASLVATAPDRVLLVLDGLDECKTPLEFSNTMACSDPKKEIQVDHLITNIIRGNLFPEISVWITSRPSAA
GQIPGGLVDRMTEIRGLTEEEIKVCLEQMFPEEQNLLGQVLSQVQANRALYLMCTVPAFCRLTGLAL
GHLYRTRLAVQDIELPLPQTLCELYSWYFRMALGGEGQDKEKVSPRIKQVTQGARKMVGTLGRLAF
HGLVKKKYVFYEQDMKAFGVDLALLQNTLCSCLLQREETLASSVAYCFIHL SLQEFVAATYYYSASK
RAIFDLFTESGMSWPRLGFLAHFRCAAQRATQAKDGRLDVFLRFLSGLLSPRVNTLLAGSLLSQGEH
QSYRDQVAEVLQGFLHPDAAVCARAINVLYCLSELRHTELACSV E EAMRSGTLAGMTSPSHRTALA
YLLQMSDICSPEADFSCLSQHVLSQLLPQLLYCQSLRLDNNQFQDPVMELLGSVLSGKDCRIRKISL
AENQIGNKGAKALARSLLVNRSLITDLRSNSIGPPGAKALADALKINRTLTSLSLQSNVIKDDGVMCV
AEALVSNQTISMLQLQKNLIGLIGAQQMADALKQNRSLKALMFSSNTIGDRGAIALAEALKVNQILENL
DLQSNSISDMGVTVLMRALCSNQTLSSLNLRENSISPEGAQALTQALCRNNTLKHLDLTANLLHDRG
AQAI AVAVGENHSLTHLHLQWNFIQAGAAARALGQALQLNRTLTTLDLQENAIGDEGASSVAGALKVN
TTLIALYLQVASIGSQGAQALGEALTVNRTL EILDLRGNDVGAAGAKALANALKLNSSLRRLNLQENSL
GMDGAIFVASALSENHGLHHINLQGNPIGESAARMISEAIKTNAPTCTVEI

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 NLRC3 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: Negative regulator of the innate immune response. Attenuates signaling pathways activated by Toll-like receptors (TLRs) and the DNA sensor STING/TMEM173 in response to pathogen-associated molecular patterns, such as intracellular poly(dA:dT), but not poly(I:C), or in response to DNA virus infection, including that of Herpes simplex virus 1 (HSV1) (PubMed:22863753, PubMed:24560620). May affect TLR4 signaling by acting at the level of TRAF6 ubiquitination, decreasing the activating 'Lys-63'-linked ubiquitination and leaving unchanged the degradative 'Lys-48'-linked ubiquitination (PubMed:22863753). Inhibits the PI3K-AKT-mTOR pathway possibly by directly interacting with the phosphatidylinositol 3-kinase regulatory subunit p85 (PIK3R1/PIK3R2) and disrupting the association between PIK3R1/PIK3R2 and the catalytic subunit p110 (PIK3CA/PIK3CB/PIK3CD) and reducing PIK3R1/PIK3R2 activation. Via its regulation of the PI3K-AKT-mTOR pathway, controls cell proliferation, predominantly in intestinal epithelial cells (PubMed:27951586). May also affect NOD1- or NOD2-mediated NF-kappa-B activation (By similarity). Might also affect the inflammatory response by preventing NLRP3 inflammasome formation, CASP1 cleavage and IL1B maturation (By similarity).

Subcellular Localization: Cytoplasm .

6. Notes

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