

Recombinant Mouse CYLD Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51709

Size: 10ug, 100ug

Protein Name: Ubiquitin carboxyl-terminal hydrolase CYLD (EC 3.4.19.12) (Deubiquitinating enzyme CYLD) (Ubiquitin thioesterase CYLD) (Ubiquitin-specific-processing protease CYLD)

Synonym: Cyld, Cyld1, Kiaa0849

UniProt ID: Q80TQ2

UniProt Link: www.uniprot.org/uniprotkb/Q80TQ2/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 952 AA

Molecular Weight: 107 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSSGLWSQEKVTSPYWEERIFYLLLQECSVTDKQTQKLLKVPKGSIGQYIQDRSVGHSRVPSTKGK
KNQIGLKILEQPHAVLFVDEKDVVEINEKFTELLAITNCEERLSLFRNRLRLSKGLQVDVGSPVKVQL
RSGEEKFPGVVRFRGPLLAERTVSGIFFGVELLEEGRGQGFTDGVYQGKQLFQCDEDCGVFVALDK
LELIEDDDNGLESDFAGPGDTMQVEPPPLEINSRVSLKVGESTESGTVIFCDVLPGKESLGYFVGVD
MDNPIGNWDGRFDGVQLCSFASVESTILLHINDIIPDSVTQERRPPKLAFLMSRGVGDKGSSSHNPKP
VTGSTSDPGSRNRSELFYTLNGSSVDSQQSKSKNPWYIDEVAEDPAKSLTEMSSDFGHSSPPPQPP
SMNSLSSSENRFHSLPFSLTMPNTNGSMAHSPLSLSVQSVMGELNSTPVQESPLPISSGNAHGLE
VGSLAEVKENPPFYGVIRWIGQPPGLSDVLAGELEDECAGCTDGTFRGTRYFTCALKKALFVKLKS
CRPDSRFASLQPVSNQIERCNSLAFFGYLSEVVEENTPPKMEKEGLEIMIGKKKGIQGHYNSCYLDS
TLFCLFAFSSALDTVLLRPKEKNDIEYYSETQELLRTEIVNPLRIYGYVCATKIMKLRKILEKVEAASGFT
SEEKDPEEFLNILFHDILRVEPLLKIRSAGQKVQDCNFYQIFMEKNEKVGVPITQQLLEWSFINSNLKF
AEAPSCLIIQMPPRFKDFKLFKKIFPSLELNITDLEDTPRQCRICGLAMYECRECYDDPDISAGKIK
QFCKTCSTQVHLHPRRLNHSYHPVSLPKDLPDWDWRHGCIPCQKMELFVLCIETSHYVAFVKYGK
DDSAWLFFDSMADRGGQNGFNIPQVTPCPEVGEYLKMSLEDLHSLDSRRIQGCARRLLCDAYMC
MYQSPTMSLYK

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 Ubiquitin carboxyl-terminal hydrolase CYLD (EC 3.4.19.12) (Deubiquitinating enzyme CYLD) (Ubiquitin thioesterase CYLD) (Ubiquitin-specific-processing protease CYLD) 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: Deubiquitinase that specifically cleaves 'Lys-63'- and linear 'Met-1'-linked polyubiquitin chains and is involved in NF-kappa-B activation and TNF-induced necroptosis (PubMed:17548520, PubMed:28701375, PubMed:29291351, PubMed:32185393, PubMed:32424362). Negatively regulates NF-kappa-B activation by deubiquitinating upstream signaling factors (PubMed:16713561). Contributes to the regulation of cell survival, proliferation and differentiation via its effects on NF-kappa-B activation (PubMed:16713561). Negative regulator of Wnt signaling. Inhibits HDAC6 and thereby promotes acetylation of alpha-tubulin and stabilization of microtubules (PubMed:19893491). Plays a role in the regulation of microtubule dynamics, and thereby contributes to the regulation of cell proliferation, cell polarization, cell migration, and angiogenesis (PubMed:16713561, PubMed:19893491, PubMed:20194890). Required for normal cell cycle progress and normal cytokinesis (PubMed:19893491). Inhibits nuclear translocation of NF-kappa-B (By similarity). Plays a role in the regulation of inflammation and the innate immune response, via its effects on NF-kappa-B activation (By similarity). Dispensable for the maturation of intrathymic natural killer cells, but required for the continued survival of immature natural killer cells (PubMed:16501569, PubMed:18643924). Negatively regulates TNFRSF11A signaling and osteoclastogenesis (PubMed:18382763). Involved in the regulation of ciliogenesis, allowing ciliary basal bodies to migrate and dock to the plasma membrane; this process does not depend on NF-kappa-B activation (PubMed:25134987). Ability to remove linear ('Met-1'-linked) polyubiquitin chains regulates innate immunity and TNF-induced necroptosis: recruited to the LUBAC complex via interaction with SPATA2 and restricts linear polyubiquitin formation on target proteins (PubMed:28701375). Regulates innate immunity by restricting linear polyubiquitin formation on RIPK2 in response to NOD2 stimulation (By similarity). Involved in TNF-induced necroptosis by removing linear ('Met-1'-linked) polyubiquitin chains from RIPK1, thereby regulating the kinase activity of RIPK1 (PubMed:28701375). Negatively regulates intestinal inflammation by removing 'Lys-63' linked polyubiquitin chain of NLRP6, thereby reducing the interaction between NLRP6 and PYCARD/ASC and formation of the NLRP6 inflammasome (PubMed:32424362). Does not catalyze deubiquitination of heterotypic 'Lys-63'-'Lys-48'-linked branched ubiquitin chains (By similarity). Removes 'Lys-63' linked polyubiquitin chain of MAP3K7, which inhibits phosphorylation and blocks downstream activation of the JNK-p38 kinase cascades (PubMed:17548520, PubMed:29291351). Also removes 'Lys-63'-linked polyubiquitin chains of MAP3K1 and MAP3K3, which inhibit their interaction with MAP2K1 and MAP2K2 (By similarity).

Subcellular Localization: Cytoplasm. Cytoplasm, perinuclear region. Cytoplasm, cytoskeleton. Cell membrane ; Peripheral membrane protein ; Cytoplasmic side . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, spindle . Cytoplasm, cytoskeleton, cilium

basal body . Note=Detected at the microtubule cytoskeleton during interphase (By similarity).
Detected at the midbody during telophase (By similarity). During metaphase, it remains localized to the centrosome but is also present along the spindle (By similarity).

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.