

Anti-CYLD Picoband Antibody

Catalog # ABO12230

Specification

Anti-CYLD Picoband Antibody - Product Information

ApplicationWBPrimary Accession<u>O9NQC7</u>HostRabbitReactivityHuman, RatClonalityPolyclonalFormatLyophilizedDescriptionBabbit IgG polyclonal antibody for Ubiguitin carboxyl-terminal h

Rabbit IgG polyclonal antibody for Ubiquitin carboxyl-terminal hydrolase CYLD (CYLD) detection. Tested with WB in Human;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CYLD Picoband Antibody - Additional Information

Gene ID 1540

Other Names Ubiquitin carboxyl-terminal hydrolase CYLD, 3.4.19.12, Deubiquitinating enzyme CYLD, Ubiquitin thioesterase CYLD, Ubiquitin-specific-processing protease CYLD, CYLD {ECO:0000303|PubMed:12917689, ECO:0000312|HGNC:HGNC:2584}

Calculated MW 107316 MW KDa

Application Details Western blot, 0.1-0.5 μg/ml, Human, Rat

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 . Detected at the microtubule cytoskeleton during interphase. Detected at the midbody during telophase. During metaphase, it remains localized to the centrosome but is also present along the spindle (PubMed:25134987).

Tissue Specificity

Detected in fetal brain, testis, and skeletal muscle, and at a lower level in adult brain, leukocytes, liver, heart, kidney, spleen, ovary and lung. Isoform 2 is found in all tissues except kidney.

Protein Name Ubiquitin carboxyl-terminal hydrolase CYLD

Contents



Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen

E.coli-derived human CYLD recombinant protein (Position: D618-K956). Human CYLD shares 97.6% and 97.9% amino acid (aa) sequence identity with mouse and rat CYLD, respectively.

Purification Immunogen affinity purified.

Cross Reactivity No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities Belongs to the peptidase C19 family.

Anti-CYLD Picoband Antibody - Protein Information

Name CYLD {ECO:0000303|PubMed:12917689, ECO:0000312|HGNC:HGNC:2584}

Function

Deubiquitinase that specifically cleaves 'Lys-63'- and linear 'Met-1'-linked polyubiquitin chains and is involved in NF-kappa-B activation and TNF-alpha-induced necroptosis (PubMed:18313383, PubMed:18636086, PubMed:26670046, PubMed:26997266, PubMed:27458237, PubMed:27591049, PubMed:27746020, PubMed:29291351, PubMed:32185393). Negatively regulates NF-kappa-B activation by deubiquitinating upstream signaling factors (PubMed: 12917689, PubMed:12917691, PubMed:32185393). Contributes to the regulation of cell survival, proliferation and differentiation via its effects on NF-kappa-B activation (PubMed:12917690). Negative regulator of Wnt signaling (PubMed:20227366). 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: 18222923, PubMed:20194890). Required for normal cell cycle progress and normal cytokinesis (PubMed:17495026, PubMed:19893491). Inhibits nuclear translocation of NF-kappa-B (PubMed:18636086). Plays a role



in the regulation of inflammation and the innate immune response, via its effects on NF- kappa-B activation (PubMed:<a href="http://www.uniprot.org/citations/18636086"

target="_blank">18636086). Dispensable for the maturation of intrathymic natural killer cells, but required for the continued survival of immature natural killer cells (By similarity). Negatively regulates TNFRSF11A signaling and osteoclastogenesis (By similarity). 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 (By similarity). Ability to remove linear ('Met-1'-linked) polyubiquitin chains regulates innate immunity and TNF-alpha-induced necroptosis: recruited to the LUBAC complex via interaction with SPATA2 and restricts linear polyubiquitin formation on target proteins (PubMed:26670046, PubMed:26997266, PubMed:27458237, PubMed:27458237, PubMed:27591049). Regulates innate immunity by restricting linear polyubiquitin formation on RIPK2 in response to NOD2 stimulation (PubMed:<a href="http://www.uniprot.org/citations/26997266"

target="_blank">26997266). Involved in TNF-alpha-induced necroptosis by removing linear ('Met-1'-linked) polyubiquitin chains from RIPK1, thereby regulating the kinase activity of RIPK1 (By similarity). 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 (By similarity). Does not catalyze deubiquitination of heterotypic 'Lys-63'-/'Lys-48'-linked branched ubiquitin chains (PubMed:27746020). Removes 'Lys-63' linked polyubiquitin chain of MAP3K7, which inhibits phosphorylation and blocks downstream activation of the JNK-p38 kinase cascades (PubMed:29291351). Also removes 'Lys-63'-linked polyubiquitin chains of MAP3K1 and MA3P3K3, which inhibit their interaction with MAP2K1 and MAP2K2 (PubMed:34497368).

Cellular Location

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 {ECO:0000250|UniProtKB:Q80TQ2}. Note=Detected at the microtubule cytoskeleton during interphase. Detected at the midbody during telophase. During metaphase, it remains localized to the centrosome but is also present along the spindle (PubMed:25134987) {ECO:0000250|UniProtKB:Q80TQ2, ECO:0000269|PubMed:25134987}

Tissue Location

Detected in fetal brain, testis, and skeletal muscle, and at a lower level in adult brain, leukocytes, liver, heart, kidney, spleen, ovary and lung. Isoform 2 is found in all tissues except kidney.

Anti-CYLD Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>



Anti-CYLD Picoband Antibody - Images



Anti- CYLD Picoband antibody, ABO12230, Western blottingAll lanes: Anti CYLD (ABO12230) at 0.5ug/mlLane 1: Rat Testis Tissue Lysate at 50ugLane 2: Rat Brain Tissue Lysate at 50ugLane 3: HELA Whole Cell Lysate at 40ugPredicted bind size: 107KDObserved bind size: 107KD

Anti-CYLD Picoband Antibody - Background

CYLD is localized on the long arm of chromosome 16. This gene encodes a cytoplasmic protein with three cytoskeletal-associated protein-glycine-conserved (CAP-GLY) domains that functions as a deubiquitinating enzyme. Mutations in this gene have been associated with cylindromatosis, multiple familial trichoepithelioma, and Brooke-Spiegler syndrome. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.