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CYLD Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8556b

Product Information

Application	WB, FC, E
Primary Accession	Q9NQC7
Reactivity	Human, Mouse, Rat
Predicted	Rabbit, Chicken, Bovine, Canine
Host	Mouse
Clonality	monoclonal
Isotype	IgG2a,k
Clone Names	1667CT857.3.6.1
Calculated MW	107316

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, CYLD1, KIAA0849
Target/Specificity	This CYLD antibody is generated from a mouse immunized with a KLH conjugated synthetic peptide between 305-582 amino acids from human CYLD.
Dilution	WB~~1:4000 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CYLD Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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-induced necroptosis (PubMed:18313383, PubMed:18636086,

PubMed:19481526, 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:19481526, 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: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-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:27591049). Regulates innate immunity by restricting linear polyubiquitin formation on RIPK2 in response to NOD2 stimulation (PubMed:26997266). Involved in TNF-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.

Background

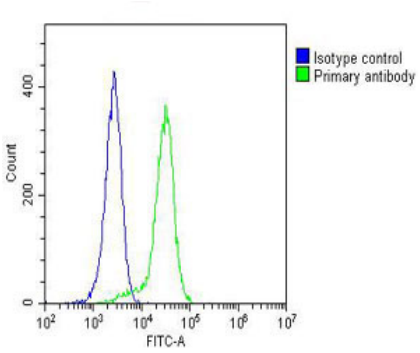
Protease that specifically cleaves 'Lys-63'-linked polyubiquitin chains. Has endodeubiquitinase activity. Plays an important role in the regulation of pathways leading to NF-kappa-B activation (PubMed:12917689,

PubMed:12917691). 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. Plays a role in the regulation of inflammation and the innate immune response, via its effects on NF-kappa-B activation (PubMed:18636086). Dispensable for the maturation of intrathymic natural killer cells, but required for the continued survival of immature natural killer cells. 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).

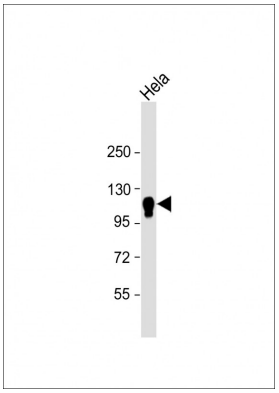
References

Bignell G.R.,et al.Nat. Genet. 25:160-165(2000).
Nagase T.,et al.DNA Res. 5:355-364(1998).
Nakajima D.,et al.DNA Res. 9:99-106(2002).
Zhang Q.-H.,et al.Genome Res. 10:1546-1560(2000).
Trompouki E.,et al.Nature 424:793-796(2003).

Images



Overlay histogram showing Hela cells stained with AM8556b(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AM8556b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OJ192088) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was mouse IgG2a(1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



Anti-CYLD Antibody at 1:4000 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 107 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.