Qty: 100 µg/200 µL

Mouse anti-CYLD

Catalog No.: 437700

Mouse anti- CYLD

FORM

This affinity-purified mouse monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

Clone: 733 **Isotype**: IgG1

IMMUNOGEN

Recombinant protein derived from the N-terminus of human CYLD protein (accession # Q9NQC7, NP_056062.1), which is 100% identical to chimpanzee, 98% similar to horse and bovine, 94% similar to mouse and 92% similar to rat sequences.

SPECIFICITY

This antibody is specific for human CYLD (Probable ubiquitin carboxyl-terminal hydrolase CYLD, ubiquitin thioesterase CYLD, ubiquitin-specific-processing protease CYLD, deubiquitin enzyme CYLD) protein. On Western blots of human Jurkat cell lysates, it identifies the target band at ~107 kDa.

REACTIVITY

Reactivity has been confirmed with human Jurkat cell lysates using Western blotting. The reactivity has also been confirmed with human HeLa cells by immunofluorescence. Based on amino acid sequence homology, reactivity with chimpanzee, horse, bovine, mouse and rat, is also expected.

Sample	Western Blotting	Immunofluorescence
Human	+++	+++
Chimpanzee	ND	ND
Horse	ND	ND
Bovine	ND	ND
Mouse	ND	ND
Rat	ND	ND

(Excellent +++, Good ++, Poor +, No reactivity 0, Not applicable N/A, Not determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1-2 µg/mL
Immunofluorescence: 2 µg/mL

(cont')

STORAGE

Store at 2-8°C for up to one month. Store at –20°C for long-term storage. Avoid repeated freezing and thawing.

BACKGROUND

Deubiquitinating enzymes (DUB) form a family of cysteine proteases that digests ubiquitin chains and reverses the process of protein ubiquitination. Despite the identification of a large number of DUBs, their physiological functions remain poorly defined.[1] The CYLD gene encodes a deubiquitinating enzyme that removes Lys-63-linked ubiquitin chains from I κB kinase signaling components and thereby inhibits NF-κB pathway activation.[2] CYLD is a positive regulator of T cell receptor signaling in thymocytes. CYLD physically interacts with active LcK and promotes recruitment of active LcK to its substrate, Zap70.[3]

Genetic evidence show that CYLD plays a crucial role in regulating the peripheral development and activation of B cells.[4] Defects in CYLD are the cause of familial cylindromatosis also known as turban tumor syndrome or dermal eccrine cylindromatosis.[5] CYLD deficient mice are more susceptible to colonic inflammation and incidence of tumors in a colitis-associated cancer model.

REFERENCES

1. Jin W et al. *J Biol Chem* 282(21):15884-93, 2007.
2. Stegmeier F et al. *Proc Natl Acad Sci* 104 (21) 8869-74, 2007.
3. Reiley WW et al. *Nat Immunol* 7(4): 411-7, 2007.
4. Massoumi R et al. *Cell* 125(4):665-77, 2006.
5. Zhang J et al. *J clin Invest* 116 (11):3042-9, 2006

RELATED PRODUCTS

Product	***Conjugate***	***Cat. No.***
Protein A	Sepharose 4B	10-1041
rec-Protein G	Sepharose 4B	10-1241
ZyMAX™ Goat anti-rabbit IgG	Unconjugated	81-6100
ZyMAX™ Goat anti-mouse IgG	Unconjugated	81-6500

Secondary antibody conjugates.

Conjugate	***Goat anti-rabbit IgG (H+L)***	***Goat anti-mouse IgG (H+L)***	***Ex/Em****	***Fluorescence similar to--***
Alexa Fluor® 488	A11008	A11001	495/519	FITC
Alexa Fluor® 555	A21428	A21422	555/565	Cy3
Alexa Fluor® 594	A11012	A11005	590/617	Texas Red
Alexa Fluor® 647	A21244	A21235	650/668	Cy5
HRP	81-6120	81-6520	NA**	NA
AP	81-6122	81-6522	NA	NA
Biotin	B2770	B2763	NA	NA

*Excitation/emission (nm); **Not applicable

For additional secondary antibody conjugates, visit www.invitrogen.com/antibodies

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