



Qty: 100µg/200µL

Mouse anti-Cathepsin W

Catalog No. 41-4200

Lot No.

Mouse anti-Cathepsin W

FORM

This 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: CW40-1B1

ISOTYPE: Mouse IgG1

IMMUNOGEN

Recombinant protein derived from the human Cathepsin W protein (accession # NP_001326, P56202). The epitope recognized by this antibody is 100% identical with chimpanzee, Rhesus monkey, rat, mouse and cow.

SPECIFICITY

This antibody is specific for the human Cathepsin W (Lymphopain) protein. On Western blots, it identifies the target band at ~43 kDa. This antibody does not cross react with human Cathepsin F.

REACTIVITY

Reactivity has been confirmed with human CCRF-HSB2 cell lysates by Western blotting. Based on amino acid sequence homology, reactivity with chimpanzee, Rhesus monkey, rat, mouse and cow is also expected.

Sample	Western Blotting	Immuno-Histochemistry (paraffin)	Immuno-fluorescence
Human	+++	+++ ⁽⁵⁾	++ ⁽⁶⁾

(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 µg/mL
Immunohistochemistry (paraffin): 5-10 µg/mL
Immunofluorescence: 1-5 µg/mL

STORAGE

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

(cont'd)

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PI414200

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BACKGROUND

The recently described cysteine proteinase cathepsin W (also known as lymphopain) is expressed specifically by CD8⁺ T lymphocytes and Natural killer cells, and is phylogenetically related to the cruzipain-like group of the C1 family of peptidases.¹ Cathepsin W may have a specific function in the mechanism or regulation of T-cell cytolytic activity.² Interestingly, cathepsin W is only very weakly expressed in the thymus. Since the vast majority of thymic T cells are represented by immature CD4⁺ 8⁺ thymocytes, and since cathepsin W is almost exclusively expressed in CD8⁺ cells, it can be concluded that the induction of cathepsin W is in some way coupled with the process of thymocyte selection in the thymus.³ Due to sequence similarities between the propeptides of cathepsin W and cathepsin F both enzymes may form a new cathepsin subgroup.⁴

REFERENCES

1. Brinkworth RI, et al. *Int J Biochem Cell Biol.* 32(3):373-84, 2000.
2. Wex T, et al. *J Immunol.* 167(4):2172-8, 2001.
3. Linnevers C, et al. *FEBS Lett.* 405(3):253-9, 1997.
4. Wex T, et al. *Biochem Biophys Res.* 248(2):255-61, 1998.
5. Buhling F, et al. *Biol Chem.* 383(7-8):1285-9, 2002.
6. Wex T, et al. *FEBS Lett.* 552(2-3):115-9, 2003.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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