

#2284 Store at -20°C

Cathepsin D Antibody



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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|------------|---------|-------------|-----------------|
| WB | H Mk | Endogenous | 46, 43, 28 | Rabbit | #P07339 | 1509 |

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| Product Usage Information | Application Western Blotting | Dilution 1:1000 |
| Storage | Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody. | |
| Specificity / Sensitivity | Cathepsin D Antibody detects endogenous levels of preprocathepsin D, procathepsin D and the heavy chain subunit of mature cathepsin D. | |
| Source / Purification | Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues with the heavy chain subunit of human Cathepsin D. Antibodies are purified by protein A and peptide affinity chromatography. | |
| Background | Cathepsin D is a ubiquitously expressed lysosomal aspartyl protease involved in the normal degradation of proteins (1). It is synthesized as an inactive 43 kDa preprocathepsin D that is cleaved and glycosylated to form a 46 kDa procathepsin D and then further cleaved to produce 28 kDa and 15 kDa subunits (heavy and light chains, respectively) (2). Cathepsin D may also be secreted into the cytosol during apoptosis and contribute to cleavage of substrates implicated in the apoptotic pathway (3). Numerous studies have suggested that cathepsin D plays a role in neuronal degradation and malignant transformation, particularly in breast cancer (4-9). | |
| Background References | <ol style="list-style-type: none"> 1. Faust, P.L. et al. (1985) <i>Proc. Natl. Acad. Sci. USA</i> 82, 4910-4. 2. Erickson, A.H. et al. (1981) <i>J. Biol. Chem.</i> 256, 11224-31. 3. Liaudet-Coopman, E. et al. (2006) <i>Cancer Lett.</i> 237, 167-79. 4. Berchem, G. et al. (2002) <i>Oncogene</i> 21, 5951-5. 5. Nomura, T. and Katunuma, N. (2005) <i>J. Med. Invest.</i> 52, 1-9. 6. Garcia, M. et al. (1996) <i>Stem Cells</i> 14, 642-50. 7. Nogami, M. et al. (2000) <i>Histochem. J.</i> 32, 505-8. 8. Nakanishi, H. (2003) <i>Ageing Res. Rev.</i> 2, 367-81. 9. Callahan, L.M. et al. <i>Neurobiol. Aging</i> 19, S99-105. | |

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| Species Reactivity | Species reactivity is determined by testing in at least one approved application (e.g., western blot). |
| Western Blot Buffer | IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight. |
| Applications Key | WB: Western Blotting |
| Cross-Reactivity Key | H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected |
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