

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Cathepsin E in direct ELISAs and Western blots. It recognizes both the pro and active forms of recombinant mouse (rm) Cathepsin E. In Western blots, no cross-reactivity with rmCathepsin B, C, H, L, or recombinant human Cathepsin O, S, or V is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 186513
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Cathepsin E Gln19-Pro397 Accession # P70269
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse Cathepsin E (Catalog # 1130-AS)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Cathepsin E is an intracellular aspartic protease of the pepsin family (1, 2). Unlike Cathepsin D, another member of the same family and a lysosomal protease with relatively ubiquitous distribution, Cathepsin E is not a lysosomal enzyme and has a limited cell and tissue distribution. However, both Cathepsins D and E play an important role in the degradation of proteins, the generation of bioactive proteins, and antigen processing (3). Both enzymes are efficient in cleaving the Swedish mutant of amyloid precursor protein (APP) at the β site but show almost no reactivity with the wild-type APP (4). Mouse Cathepsin E is synthesized as a precursor protein, consisting of a signal peptide (residues 1-18), a propeptide (residues 19-59), and a mature chain (residues 60-397) (1).

References:

1. Tatnell, P.J. *et al.* (1997) FEBS Lett. **408**:62.
2. Kay, J. and P.J. Tatnell (2004) in *Handbook of Proteolytic Enzymes* (Barrett, A.J. *et al.*, eds.), p. 33, Academic Press, San Diego.
3. Tsukuba, T. *et al.* (2000) Mol. Cells **10**:601.
4. Gruninger-Leitch, F. *et al.* (2000) Nat. Biotechnol. **18**:66.