Human Cathepsin E Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1294

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human pro and active Cathepsin E in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 40% cross-reactivity with recombinant mouse Cathepsin E is observed and less than 2% cross-reactivity with recombinant human (rh) Cathepsin D and rhBACE is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Cathepsin E Ile54-Pro396 Accession # NP_001901
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	0.1 µg/mL	Recombinant Human Cathepsin E (Catalog # 1294-AS)
Immunohistochemistry	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human colon
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Cathepsin E (Catalog # 1294-AS), see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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). 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 Cathepsin D and E play an important role in the degradation of proteins, the generation of bioactive proteins, and antigen processing (2). Both enzymes are efficient in cleaving Swedish mutant of amyloid precursor protein (APP) at the β site but show almost no reactivity with wild-type APP (3). Human Cathepsin E is synthesized as a precursor protein, consisting of a signal peptide (residues 1-17), a propeptide (residues 18-53), and a mature chain (residues 54-396) (4).

References:

1. Kay, J. and P.J. Tatnell (2004) in *Handbook of Proteolytic Enzymes* (Barrett, A.J. *et al.* eds.), p. 33, Academic Press, San Diego.
2. Tsukuba, T. *et al.* (2000) Mol. Cells **10**:601.
3. Gruninger-Leitch, F. *et al.* (2000) Nat. Biotechnol. **18**:66.
4. Azuma, T. *et al.* (1989) J. Biol. Chem. **264**:16748.

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