

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cathepsin V in Western blots. In this format, approximately 15% cross-reactivity with recombinant human (rh) Cathepsin C, rhCathepsin A, rhCathepsin D, rhCathepsin O is observed and less than 5% cross-reactivity with rhCathepsin S and rhCathepsin X/Z/P is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Cathepsin V Val18-Val334 Accession # O60911
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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 V (Catalog # 1080-CY)

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.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 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 V (also known as Cathepsin L2 and U) is a cysteine protease of the papain family (1). It is expressed as a proenzyme in lysosomes, which can be autocatalytically converted to the mature form at pH 4.0 (2). Cathepsin V shows high amino acid identity with Cathepsin L (77% for the proenzymes and 80% for the mature enzymes) (3). However, Cathepsin V is specifically expressed in the thymus, testis, and corneal epithelium whereas Cathepsin L is expressed throughout the body.

References:

1. Turk, V. *et al.* (2001) *EMBO J.* **20**:4629.
2. Bromme, D. *et al.* (1999) *Biochemistry* **38**:2377.
3. Somoza, J.R. *et al.* (2000) *Biochemistry* **39**:12543.