Anti-human Cathepsin V Antibody

ORDERING INFORMATION

Catalog Number: AF1080

Lot Number: HUG01

Size: 100 μg

Formulation: 0.2 μm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human Cathepsin V

Immunogen: NS0-derived rhCathepsin V (aa 18 - 334)

Ig Type: goat IgG

Applications: Neutralization
Direct ELISA
Western blot
Immunohistochemistry

Preparation

Produced in goats immunized with purified, NS0-derived, recombinant human Cathepsin V (rhCathepsin V). Human Cathepsin V specific IgG was purified by human Cathepsin V affinity chromatography.

Formulation

Lyophilized from a 0.2 μm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 1 mL of PBS is used, the antibody concentration will be 0.1 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to neutralize human Cathepsin V enzymatic activity.

Applications

Neutralization - This antibody has been used to inhibit/neutralize the enzymatic activity of rhCathepsin V (R&D Systems, Catalog # 1080-CY). The antibody was preincubated with the activated enzyme at different molar ratios at room temperature for 30 min. The enzyme was then assayed with a peptide substrate (Z-L-R-AMC). Fifty percent of the proteolytic activity was inhibited by the antibody at approximately 2.2 μg/mL (IC_{50}) under conditions in which the enzyme was present at 0.5 μg/mL and the substrate concentration was 10 μM. Considering the molecular masses of the enzyme (37 kDa) and the antibody (150 kDa), IC_{50} was achieved at approximately 1:1 molar ratio of the antibody to the enzyme.

Direct ELISA - This antibody can be used at 0.5 - 1.0 μg/mL with the appropriate secondary reagents to detect human Cathepsin V. The detection limit for rhCathepsin V is approximately 0.1 ng/well. In this format, this antibody shows approximately 15% cross-reactivity with rhCathepsin C and less than 5% cross-reactivity with rhCathepsin A, rhCathepsin D, rhCathepsin X/Z/P, rhCathepsin S and rhCathepsin L.

Western blot - This antibody can be used at 0.1 - 0.2 μg/mL with the appropriate secondary reagents to detect human Cathepsin V. The detection limit for rhCathepsin V is approximately 5 ng/lane under non-reducing and reducing conditions.

Immunohistochemistry - This antibody will detect Cathepsin V in cells and tissues. The working dilution is 2 - 15 μg/mL. For chromogenic detection of labeling, use R&D Systems' Cell and Tissue Staining Kits (CTS Series).

Optimal dilutions should be determined by each laboratory for each application.

R&D Systems, Inc.
1-800-343-7475

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