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Anti-Cathepsin K Picoband Antibody

Catalog # ABO12542

Specification

Anti-Cathepsin K Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P43235
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Cathepsin K(CTSK) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Cathepsin K Picoband Antibody - Additional Information

Gene ID 1513

Other Names
Cathepsin K, 3.4.22.38, Cathepsin O, Cathepsin O2, Cathepsin X, CTSK, CTSO, CTSO2

Calculated MW
36966 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Lysosome.

Tissue Specificity
Predominantly expressed in osteoclasts (bones).

Protein Name
Cathepsin K

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E. coli-derived human Cathepsin K recombinant protein (Position: A115-M329). Human Cathepsin K shares 86.9% and 88.8% amino acid (aa) sequence identity with mouse and rat Cathepsin K, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-Cathepsin K Picoband Antibody - Protein Information

Name CTSK

Synonyms CTSO, CTSO2

Function
Thiol protease involved in osteoclastic bone resorption and may participate partially in the disorder of bone remodeling. Displays potent endoprotease activity against fibrinogen at acid pH. May play an important role in extracellular matrix degradation. Involved in the release of thyroid hormone thyroxine (T4) by limited proteolysis of TG/thyroglobulin in the thyroid follicle lumen (PubMed:11082042).

Cellular Location
Lysosome. Secreted. Apical cell membrane; Peripheral membrane protein; Extracellular side. Note=Localizes to the lumen of thyroid follicles and to the apical membrane of thyroid epithelial cells

Tissue Location
Predominantly expressed in osteoclasts (bones) (PubMed:7805878). Expressed in thyroid epithelial cells (PubMed:11082042).

Anti-Cathepsin K Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Cathepsin K Picoband Antibody - Images

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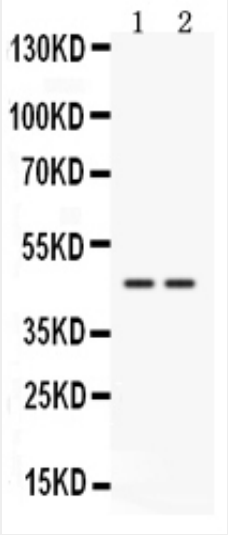
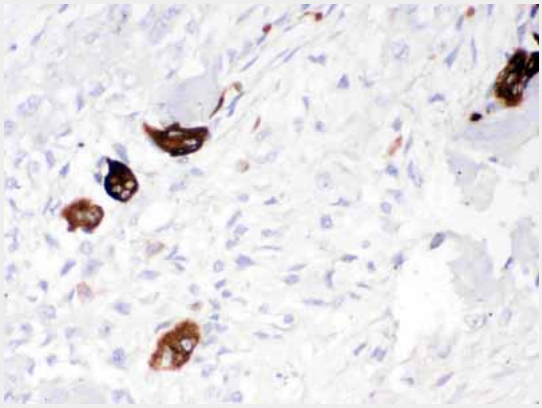


Western blot analysis of Cathepsin K expression in HELA whole cell lysates (lane 1) and 22RV1 whole cell lysates (lane 2). Cathepsin K at 45KD was detected using rabbit anti- Cathepsin K Antigen Affinity purified polyclonal antibody (Catalog # ABO12542) at0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .



Cathepsin K was detected in paraffin-embedded sections of human osteosarcoma tissues using rabbit anti- Cathepsin K Antigen Affinity purified polyclonal antibody (Catalog # ABO12542) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .

Anti-Cathepsin K Picoband Antibody - Background

Cathepsin K, abbreviatedÂ CTSK, is anÂ enzymeÂ that in humans is encoded by theÂ CTSKÂ gene. It is mapped to 1q21. The protein encoded by this gene is a lysosomalÂ cysteine proteaseÂ involved in bone remodeling and resorption. And this protein, which is a member of the peptidase C1 protein family, is expressed predominantly inÂ osteoclasts. Additionally, the enzyme's ability to catabolizeÂ elastin,Â collagen, andÂ gelatinÂ allow it to break downÂ boneÂ and cartilage. This catabolic activity is also partially responsible for the loss of lung elasticity and recoil inemphysema. Cathepsin KÂ inhibitors, such asÂ odanacatib, show great potential in the treatment ofÂ osteoporosis. Cathepsin K is degraded by Cathepsin S, called Controlled Cathepsin Cannibalism.