

anti-Human Cathepsin K Polyclonal Antibody | anti-CTSK antibody

Anti-Cathepsin K Antibody

CATALOG # AAA46415	REACTIVITY Human	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

Cathepsin K; Polyclonal Antibody; Anti-Cathepsin K Antibody; Cathepsin O; Cathepsin O1; Cathepsin O2; Cathepsin X; CATK_HUMAN; CTS02; Ctsk; CTSO; CTSO1; CTSO2; MGC23107; PKND; PYCD; cathepsin K; anti-CTSK antibody

PRODUCT SPECIFICATIONS

Reactivity	Human
Clonality	Polyclonal
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized. Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Sequence Length	329
Applicable Applications for anti-CTSK antibody	IHC (Immunohistochemistry), WB (Western Blot)
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.
Ig Type	Rabbit IgG
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Preparation and Storage	At -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquoted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



IHC (Immunohistochemistry)

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



WB (Western Blot)

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 at 0.5 ug/mL. The blot was developed using chemiluminescence (ECL) method.

ADDITIONAL INFORMATION

Related Product Information for anti-CTSK antibody	Description: Rabbit IgG polyclonal antibody for Cathepsin K(CTSK) detection. Tested with WB, IHC-P in Human. Background: Cathepsin K, abbreviated CTSK, is an enzyme that in humans is encoded by the CTSK gene. It is mapped to 1q21. The protein encoded by this gene is a lysosomal cysteine protease involved in bone remodeling and resorption. And this protein, which is a member of the peptidase C1 protein family, is expressed predominantly in osteoclasts. Additionally, the enzyme's ability to catabolize elastin, collagen, and gelatin allow it to break down bone and cartilage. This catabolic activity is also partially responsible for the loss of lung elasticity and recoil in emphysema. Cathepsin K inhibitors, such as odanacatib, show great potential in the treatment of osteoporosis. Cathepsin K is degraded by Cathepsin S, called Controlled Cathepsin Cannibalism.
References	1. "Entrez Gene: CTSK cathepsin K". 2. Inaoka T, Bilbe G, Ishibashi O, Tezuka K, Kumegawa M, Kokubo T (January 1995). "Molecular cloning of human cDNA for cathepsin K: novel cysteine proteinase predominantly expressed in bone". Biochem. Biophys. Res. Commun. 206 (1): 89-96. 3. Motyckova G, Fisher DE (2003). "Pycnodysostosis: role and regulation of cathepsin K in osteoclast function and human disease.". Curr. Mol. Med. 2 (5): 407-21.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4503151
NCBI GeneID	1513
NCBI Accession #	NP_000387.1
NCBI GenBank Nucleotide #	NM_000396.3
UniProt Accession #	P43235; Q6FHS6
Molecular Weight	36,966 Da
NCBI Official Full Name	cathepsin K preproprotein
NCBI Official Synonym Full Names	cathepsin K
NCBI Official Symbol	CTSK
NCBI Official Synonym Symbols	CTSO; PKND; PYCD; CTSO2; CTSO1; CTSO2
NCBI Protein Information	cathepsin K
UniProt Protein Name	Cathepsin K
UniProt Gene Name	CTSK
UniProt Synonym Gene Names	CTSO; CTSO2
UniProt Entry Name	CATK_HUMAN

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