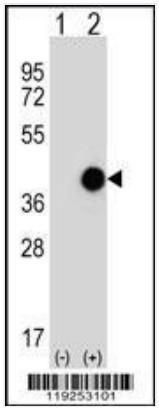
CTSK Antibody – Rabbit Polyclonal

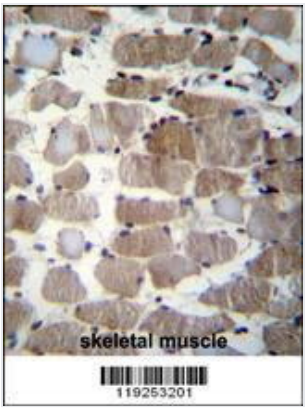
PRODUCT OVERVIEW

Product Name	CTSK, Polyclonal Antibody
Full Product Name	CTSK, ID (E112) (CTSK, CTSO, CTSO2, Cathepsin K, Cathepsin O, Cathepsin O2, Cathepsin X) (MaxLight 650)
Product Gene Name	anti-CTSK antibody
Product Synonym Names	CTSK; CTSO; CTSO2; Cathepsin K; Cathepsin O; Cathepsin O2; Cathepsin X
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by saturated ammonium sulfate precipitation followed by dialysis against PBS.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	36,966 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (150768684..150780917, complement). Location: 1q21
OMIM	265800
3D Structure	ModBase 3D Structure for P43235
Immunogen	CTSK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 96-126 amino acids from the Central region of human CTSK.
Conjugate	MaxLight650
Note	Preservative Free
Product Categories/Family for anti-CTSK antibody	Antibodies; Cathepsin
Applications Tested/Suitable for anti-CTSK antibody	Flow Cytometry (FC/FACS), FLISA, Immunohistochemistry (IHC), Western Blot (WB)
Application Notes for anti-CTSK antibody	FC/FACS: 1:10-50 FLISA: 1:1,000 IHC: 1:10-50 WB: 1:50-100 Applications are based on unconjugated antibody.
Related Product Information for anti-CTSK antibody	The protein encoded by this gene is a lysosomal cysteine proteinase involved in bone remodeling and resorption. This protein, which is a member of the peptidase C1 protein family, is predominantly expressed in osteoclasts. However, the encoded protein is also expressed in a significant fraction of human breast cancers, where it could contribute to tumor invasiveness. Mutations in this gene are the cause of pycnodysostosis, an autosomal recessive disease characterized by osteosclerosis and short stature. This gene may be subject to RNA editing. [provided by RefSeq].

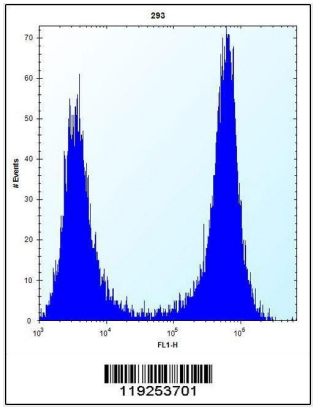
Product References and Citations for anti-CTSK antibody	Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010). Novinec, M., et al. Biochem. J. 429(2):379-389(2010). Khan, B., et al. J. Investig. Med. 58(5):720-724(2010). Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010): Szumilo, J., et al. Folia Histochem. Cytobiol. 47(4):571-578(2009).
Other Notes	Small volumes of anti-CTSK antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CTSK purchase	MBS6289921 is an antibody targeting CTSK. Also known as CTSK, ID (E112) (CTSK, CTSO, CTSO2, Cathepsin K, Cathepsin O, Cathepsin O2, Cathepsin X) (MaxLight 650). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-CTSK antibody
Western blot analysis of CTSK (arrow) using rabbit polyclonal CTSK Antibody (Center E112). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CTSK gene.



Immunohistochemistry (IHC) of anti-CTSK antibody
CTSK Antibody (Center E112) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CTSK Antibody (Center E112) for immunohistochemistry. Clinical relevance has not been evaluated.



Flow Cytometry (FC/FACS) of anti-CTSK antibody
CTSK Antibody (Center E112) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CTSK. It may not necessarily be applicable to this product.

NCBI GI #	4503151
NCBI GeneID	1513
NCBI Accession #	NP_000387.1
UniProt Primary Accession #	P43235
UniProt Secondary Accession #	Q6FHS6
UniProt Related Accession #	P43235

GenBank Nucleotide #	NM_000396.3
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; CTS02; CTSO1; CTSO2
UniProt Protein Name	Cathepsin K
UniProt Synonym Protein Names	Cathepsin O; Cathepsin O2; Cathepsin X
Protein Family	Cathepsin
UniProt Gene Name	CTSK
UniProt Synonym Gene Names	CTSO; CTSO2
UniProt Entry Name	CATK_HUMAN
NCBI Protein Information	cathepsin K; cathepsin O; cathepsin X; cathepsin O1; cathepsin O2
NCBI Summary for CTSK	The protein encoded by this gene is a lysosomal cysteine proteinase involved in bone remodeling and resorption. This protein, which is a member of the peptidase C1 protein family, is predominantly expressed in osteoclasts. However, the encoded protein is also expressed in a significant fraction of human breast cancers, where it could contribute to tumor invasiveness. Mutations in this gene are the cause of pycnodysostosis, an autosomal recessive disease characterized by osteosclerosis and short stature. [provided by RefSeq, Apr 2013]
UniProt Comments for CTSK	CTSK: Closely 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. Defects in CTSK are the cause of pycnodysostosis (PKND). PKND is an autosomal recessive osteochondrodysplasia characterized by osteosclerosis and short stature. Belongs to the peptidase C1 family. Protein type: Protease; EC 3.4.22.38 Chromosomal Location of Human Ortholog: 1q21 Cellular Component: extracellular space; extracellular region Molecular Function: collagen binding; protein binding; proteoglycan binding; fibronectin binding; cysteine-type endopeptidase activity; cysteine-type peptidase activity Biological Process: extracellular matrix disassembly; collagen catabolic process; intramembranous ossification; extracellular matrix organization and biogenesis; proteolysis involved in cellular protein catabolic process; toll-like receptor signaling pathway; innate immune response; proteolysis; bone resorption Disease: Pycnodysostosis
Research Articles on CTSK	**1.** Our results demonstrate that increased adhesion, migration and invasiveness of tumor cells depend on the inactivation of the tumor suppressive function of profilin 1 by cathepsin X.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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