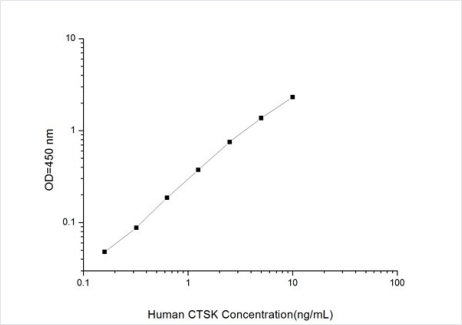
CTSK ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	CTSK, ELISA Kit
Full Product Name	Human CTSK (Cathepsin K) ELISA Kit
Product Gene Name	CTSK elisa kit
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, Plasma, Biological Fluids
Detection Range	0.156-10ng/mL
Sensitivity	Min: 0.094ng/mL; Max: 10ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Human CTSK. No significant cross-reactivity or interference between Human CTSK and analogues was observed. Note: Limited by current skills and knowledge, it is impossible for us to complete the cross- reactivity detection between Human CTSK and all the analogues, therefore, cross reaction may still exist.
Preparation and Storage	Store at 4 degree C.
Molecular Weight	36,966 Da
OMIM	265800
3D Structure	ModBase 3D Structure for P43235
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CTSK elisa kit	**Description:** The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of CTSK in human serum, plasma and other biological fluids **Principle of the Assay:** This ELISA kit uses Sandwich-ELISA as the method. The micro ELISA plate provided in this kit has been pre-coated with an antibody specific to Human CTSK. Standards or samples are added to the appropriate micro ELISA plate wells and bound by the specific antibody. Then a biotinylated detection antibody specific for Human CTSK and Avidin-Horseradish Peroxidase (HRP) conjugate is added to each micro plate well successively and incubated. Free components are washed away. The substrate solution is added to each well. Only those wells that contain Human CTSK, biotinylated detection antibody and Avidin-HRP conjugate will appear blue in color. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color turns yellow. The optical density (OD) is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The OD value is proportional to the concentration of Human CTSK. You can calculate the concentration of Human CTSK in the samples by comparing the OD of the samples to the standard curve.
Other Notes	Small volumes of CTSK elisa kit 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	MBS2508712 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the CTSK, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CTSK. The ELISA analytical biochemical technique of the MBS2508712 kit is based on CTSK antibody-CTSK antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CTSK antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CTSK. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of CTSK elisa kit

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 O1; cathepsin O2; cathepsin X
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; extracellular matrix organization and biogenesis; intramembranous ossification; 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.** Cathepsin K appears to be consistently and strongly expressed in melanocytic lesions and valuable in distinguishing malignant melanomas from the majority of human cancers.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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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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