

Human Cathepsin B ELISA Kit | CTSB elisa kit

Human Cathepsin B PicoKine ELISA Kit

CATALOG #
AAA11573

REACTIVITY
Human

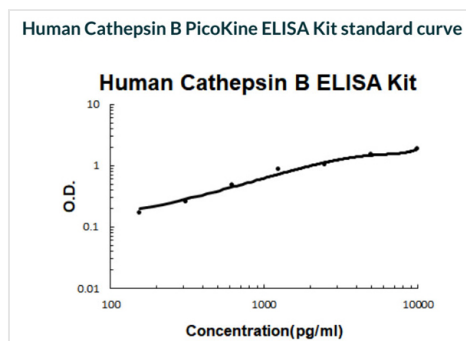
PRODUCT SYNONYMS

Cathepsin B; Human Cathepsin B PicoKine ELISA Kit; cathepsin B; aAmyloid precursor protein secretase; APP secretase; APPS; CATB_HUMAN; Cathepsin B heavy chain; Cathepsin B1; CPSB; CTSB; Cysteine protease; CTSB elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Natural and recombinant Human CTSB
Sequence Length	339
Samples	Cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA)
Detection Range	156 pg/ml - 10,000 pg/ml
Sensitivity	<5 pg/ml
Intra-assay Precision	Intra-Assay Precision (Precision within an assay): Three samples of known concentration were tested on one plate to assess intra-assay precision.
Inter-assay Precision	Inter-Assay Precision (Precision across assays): Three samples of known concentration were tested in separate assays to assess inter-assay precision.
Preparation and Storage	Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles (Shipped with wet ice.)

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for CTSB elisa kit	Background: Cathepsin B is an enzymatic protein belonging to the peptidase or protease families. In humans, it is coded by the CTSB gene.1, 2 And this gene is mapped to chromosome 8p22.3 The protein encoded by this gene is a lysosomal cysteine proteinase composed of a dimer of disulfide-linked heavy and light chains, both produced from a single protein precursor. It is a member of the peptidase C1 family. Cathepsin B was once suspected as a candidate protease participating in the conversion of beta-amyloid precursor protein into the amyloid plaques found in Alzheimer's disease patients. However, this function is now known to be mediated by BACE1 protease. It is now thought that cathepsin B can degrade beta-amyloid precursor protein into harmless fragments. Thus, it is conceivable cathepsin B may play a pivotal role in the natural defense against Alzheimer's disease.4 Overexpression of cathepsin B has been associated with esophageal adenocarcinoma and other tumors. At least five transcript variants encoding the same protein have been found for this gene. The standard product used in this kit is recombinant human Cathepsin B with the molecular mass of 37KDa. Principle of the Assay: The Picokine™ Human CTSB Pre-Coated ELISA (Enzyme-Linked Immunosorbent Assay) kit is a solid-phase immunoassay specially designed to measure Human CTSB with a 96-well strip plate that is pre-coated with antibody specific for CTSB. The detection antibody is a biotinylated antibody specific for CTSB. The capture antibody is polyclonal antibody from goat and the detection antibody is polyclonal antibody from goat. The kit includes Human CTSB protein as standards. To measure Human CTSB, add standards and samples to the wells, then add the biotinylated detection antibody. Wash the wells with PBS or TBS buffer, and add Avidin-Biotin-Peroxidase Complex (ABC-HRP). Wash away the unbounded ABC-HRP with PBS or TBS buffer and add TMB. TMB is an HRP substrate and will be catalyzed to produce a blue color product, which changes into yellow after adding the acidic stop solution. The absorbance of the yellow product at 450nm is linearly proportional to Human CTSB in the sample. Read the absorbance of the yellow product in each well using a plate reader, and benchmark the sample wells' readings against the standard curve to determine the concentration of Human CTSB in the sample.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	68067549
NCBI GeneID	1508
UniProt Accession #	P07858; Q503A6; Q96D87; B3KQR5; B3KRR5
Molecular Weight	37,822 Da
NCBI Official Full Name	Cathepsin B
NCBI Official Synonym Full Names	cathepsin B
NCBI Official Symbol	CTSB
NCBI Official Synonym Symbols	APPS; CPSB
NCBI Protein Information	cathepsin B; cathepsin B1; APP secretase; cysteine protease; amyloid precursor protein secretase
UniProt Protein Name	Cathepsin B
UniProt Gene Name	CTSB
UniProt Synonym Gene Names	CPSB; APPS
UniProt Entry Name	CATB_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.