

Human Cathepsin B ELISA Kit | CTSB elisa kit

Human Cathepsin B Quick ELISA Kit

CATALOG #
AAA125868

REACTIVITY
Human

PRODUCT SYNONYMS

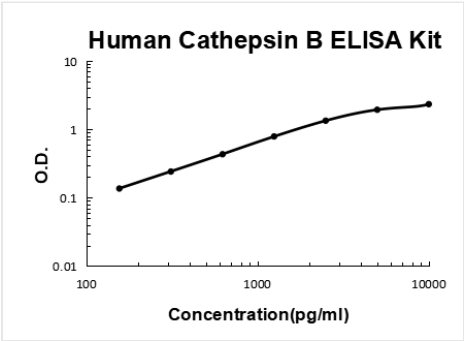
Cathepsin B; Human Cathepsin B Quick ELISA Kit; Cathepsin B|APP secretase; APPS; Cathepsin B1; CPSBamyloid precursor protein secretase; CTSB; cysteine protease; EC 3. 4. 22; EC 3. 4. 22. 1; cathepsin B; CTSB elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Natural and recombinant Human CTSB
Assay Type	Colorimetric sandwich
Samples	cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA)
Detection Range	156pg/ml-10,000pg/ml
Sensitivity	<5pg/ml
Capture/Detection Antibodies	Capture antibody- polyclonal antibody from goat Detection antibody- polyclonal antibody from goat
Sample Data	Concentration(pg/ml) 0 156 312 625 1250 2500 5000 10000 O.D. 0.107 0.243 0.348 0.539 0.894 1.445 2.041 2.443
Intra-Assay Precision	Sample 1 2 3 n 16 16 16 Mean(pg/ml) 242 1834 4362 Standard deviation 16.7 126.55 322.79 CV(%) 6.9% 6.9% 7.4%
Inter-Assay Precision	Sample 1 2 3 n 24 24 24 Mean(pg/ml) 264 1932 4096 Standard deviation 20.86 142.97 372.74 CV(%) 7.9% 7.4% 9.1%
Reproducibility	To assay reproducibility, three samples with differing target protein concentrations were assayed using four different lots. Lots: Lot 1 (pg/ml) Lot 2 (pg/ml) Lot 3 (pg/ml) Lot 4 (pg/ml) Mean (pg/ml) Standard Deviation CV (%) Sample 1: 242 251 245 277 254 15.99 6.3% Sample 2: 1834 1763 1647 1547 1698 56.03 3.3% Sample 3: 4362 4260 3862 4631 4279 282.4 6.6% *number of samples for each test n=16.
Cross Reactivity	There is no detectable cross-reactivity with other relevant proteins.
Immunogen	Expression system for standard: NS0; Immunogen sequence: R18-I339
Anticoagulant	heparin or EDTA
Benefits	The Quick ELISA kits, assay takes less than 1.5 hours. Detect Human Cathepsin B with <5pg/ml sensitivity. Format: 96-well plate with removable strips. This is a TMB colorimetric sandwich ELISA kit with short assay time and quick experiment set up.

Principle	Human CTSB Pre-Coated ELISA (Enzyme-Linked Immunosorbent Assay) kit is a solid phase immunoassay specially designed to measure Human CTSB in cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA). It uses our proprietary Quick ELISA technology. Quick ELISA technology employs capture antibodies conjugated to an affinity tag that is recognized by the polyclonal antibody used to coat our Quick ELISA plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. The kit contains recombinant Human CTSB with immunogen: Expression system for standard: NS0; Immunogen sequence: R18-I339. To measure Human CTSB, add standards and samples to the wells, then add antibody cocktail. Wash the wells with PBS or TBS buffer, and add TMB. TMB is substrate to HRP and will be catalyzed to produce a blue color product, which changes into yellow after adding acidic stop solution. The density of the yellow product is linearly proportional to Human CTSB in the sample. Read the density 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.
Assay Procedure Step 1	10000pg/ml, 5000pg/ml, 2500pg/ml, 1250pg/ml, 625pg/ml, 312.5pg/ml, 156.25pg/ml
TMB Incubation Time	15
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



Application Data

ADDITIONAL INFORMATION

Related Product Information for CTSB elisa kit	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.
Product Categories/Family for CTSB elisa kit	ELISA kits

NCBI AND UNIPROT INFORMATION

NCBI GeneID	1508
UniProt Accession #	P07858
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.

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Online datasheet: <https://www.aaabiotech.com/ctsb-human-elisa-kits/cathepsin-b/125868>