

Datasheet for KOA0385**Human Cathepsin B ELISA Kit****Overview**

Description:	Human Cathepsin B AccuSignal ELISA Kit - KOA0385
Item No.:	KOA0385
Size:	1 Kit
Applications:	ELISA
Reactivity:	Human
Range:	156 pg/ml - 10000 pg/ml

Product Details**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.

Synonyms:	aAmyloid precursor protein secretase, APP secretase, APPS, CATB_HUMAN, Cathepsin B heavy chain, Cathepsin B1, CPSB, CTSB, Cysteine protease
Detection Kit Type:	ELISA Kit
Detection Range:	156 pg/ml - 10000 pg/ml
Sensitivity:	<5 pg/ml

Target Details

Gene Name:	CTSB
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Reactivity:	Human
Immunogen:	Expression system for standard: NSO; Immunogen sequence: R18-I339
Purity/Specificity:	Natural and recombinant human Cathepsin B. There is no detectable cross-reactivity with other relevant proteins.
Relevant Links:	• UniProtKB - P07858 • NCBI - NP_001899.1 • GeneID - 1508 • KOA0385 Protocol

Application Details

Tested Applications:	ELISA
Application Note:	Useful in Sandwich ELISA for Quantitative Detection of Antigen. Aliquot 0.1ml per well of the 10000pg/ml, 5000pg/ml, 2500pg/ml, 1250pg/ml, 625pg/ml, 312pg/ml, 156pg/ml human Cathepsin B standard solutions into the precoated 96-well plate. Add 0.1ml of the sample diluent buffer into the control well (Zero well). Add 0.1ml of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. It is recommended that each human Cathepsin B standard solution and each sample be measured in duplicate.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	DOE: 2 - 8° C - 12/10/2022 -20° C - 06/10/2023

Formulation

Concentration:	1 Kit
Anticoagulant:	Heparin Sodium

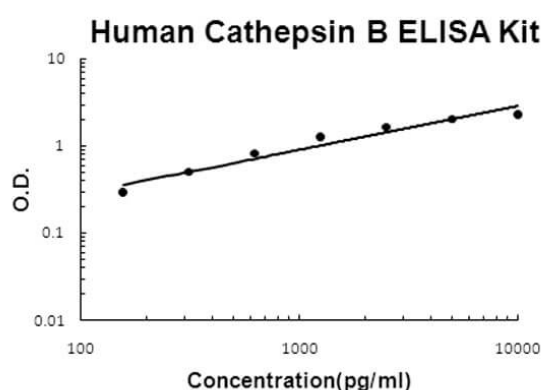
Shipping & Handling

Shipping Condition:	Wet Ice
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Storage Condition: Store vials at 4°C prior to opening. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 6 months at 4°C as an undiluted liquid. Dilute only prior to immediate use. For extended storage freeze at -20°C or below for 12 months. Avoid cycles of freezing and thawing.

Expiration: See kit insert for complete instructions.

Images



ELISA

Human Cathepsin B AccuSignal ELISA Kit standard curve.
Assay Range: 156pg/ml-10000pg/ml. Sensitivity: <5pg/ml.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.