Datasheet for ABIN1112570

Cathepsin B ELISA Kit

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Overview

Quantity:	96 tests
Target:	Cathepsin B (CTSB)
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	For quantitative detection of Cathepsin B in tissue lysates or cell culture supernates.
Sample Type:	Tissue Lysate, Cell Culture Supernatant
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	< 5 pg/mL
Components:	1. One 96-well plate pre-coated with anti-Mouse Cathepsin B antibody 2. Lyophilized Mouse Cathepsin B standards: 2 tubes (10ng / tube) 3. Sample / Standard diluent buffer: 30ml 4. Biotin conjugated anti-Mouse Cathepsin B antibody (Concentrated): 130 µl.
Material not included:	1. 37 °C incubator 2. Microplate reader (wavelength: 450nm) 3. Precise pipette and disposable pipette tips 4. Automated plate washer 5. ELISA shaker 6. 1.5ml of Eppendorf tubes 7. Plate cover 8. Absorbent filter papers 9. Plastic or glass container with volume of above 1L

Target Details

Target:	Cathepsin B (CTSB)
Alternative Name:	Cathepsin B (CTSB Products)
Background:	Cathepsin B is an enzymatic protein belonging to the peptidase (or protease) families. In humans, it is coded by the CTSB gene. This protein is a lysosomal cysteine protease composed of a dimer of disulfide-linked heavy and light chains, both produced from a single protein precursor. It 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. Overexpression of cathepsin B has been associated with esophageal adenocarcinoma and other tumors.
Pathways:	Activation of Innate immune Response, Toll-Like Receptors Cascades

Application Details

Comment:	This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-Cathepsin B polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti- Cathepsin B polyclonal antibody was used as detection antibodies. The standards test samples and biotin conjugated detection antibody were added - the wells subsequently and wash with wash buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with wash buffer. TMB substrates were used - visualize HRP enzymatic reaction. TMB was catalyzed by HRP - produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional - the Cathepsin B amount of sample captured in plate. Read the O.D. absorbance at 450 nm in a microplate reader and then the concentration of Cathepsin B can be calculated.
Plate:	Pre-coated
Reagent Preparation:	1. Before the experiment, centrifuge each kit component for several minutes to bring down all reagents to the bottom of tubes. 2. It is recommend to measure each standard and sample in duplicate. 3. Do NOT let the plate completely dry at any time! Since the dry condition can inactivate the biological material on the plate. 4. Do not reuse pipette tips and tubes to avoid cross contamination. 5. Do not use the expired components and the components from different batches. 6. To avoid the marginal effect of plate incubation for temperature differences (the marginal wells always get stronger reaction), it is recommend to equilibrate the ABC working solution and TMB substrate for at least 30 min at room temperature (37°C) before adding to wells.The TMB substrate (Kit Component 8) is colorless and transparent before use, if not, please contact us for replacement.

Application Details

Sample Preparation:	Preparation of sample and reagents 1. Sample Isolate the test samples soon after collecting, then, analyze immediately (within 2 hours). Or aliquot and store at -20 °C for long term. Avoid multiple freeze-thaw cycles. Cell culture supernate, tissue lysate or body fluids: Centrifuge to remove precipitate, analyze immediately or aliquot and store at -20 °C . Serum: Coagulate the serum at room temperature (about 4 hours). Centrifuge at approximately 1000 × g for 15 min. Analyze the serum immediately or aliquot and store at -20 °C . Plasma: Collect plasma with heparin as the anticoagulant. Centrifuge at 2-8°C for 15 min at 1000 x g within 30 min of collection. Analyze immediately or aliquot and store frozen at -20 °C. Citrate and EDTA can not be used as anticoagulant here. Note: 1. Coagulate blood samples completely, then, centrifuge, and avoid hemolysis and particle. 2. NaN3 can not be used as test sample preservative, since it is the inhibitor for HRP.
Restrictions:	For Research Use only

Handling

Preservative:	Sodium azide, Thimerosal (Merthiolate)