

Human CTSB Knockdown Cell Lysate

Cat. No. CTSB-335HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview WB-validated CTSB Knockdown HeLa Cell Lysate

Species Human

Source HeLa

Description

This gene encodes a member of the C1 family of peptidases. Alternative splicing of this gene results in multiple transcript variants. At least one of these variants encodes a preproprotein that is proteolytically processed to generate multiple protein products. These products include the cathepsin B light and heavy chains, which can dimerize to form the double chain form of the enzyme. This enzyme is a lysosomal cysteine protease with both endopeptidase and exopeptidase activity that may play a role in protein turnover. It is also known as amyloid precursor protein secretase and is involved in the proteolytic processing of amyloid precursor protein (APP). Incomplete proteolytic processing of APP has been suggested to be a causative factor in Alzheimer's disease, the most common cause of dementia. Overexpression of the encoded protein has been associated with esophageal adenocarcinoma and other tumors. Both Cathepsin B and Cathepsin L are involved in the cleavage of the spike protein from the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) upon its entry to the human host cell. Multiple pseudogenes of this gene have been identified.

Form Cell-Tissue Lysis buffer

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Molecular Mass	38 kDa
Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type HeLa cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and equal amount of total proteins.
Storage	Store at -20 centigrade for two years.
Concentration	Lot-specific
Shipping	Blue Ice
Components	1 vial of 100 µg WT HeLa cell lysate 1 vial of 100 µg CTSB KD HeLa cell lysate
Protein Families	Druggable Genome, Protease
Protein Pathways	Antigen processing and presentation, Lysosome
Lysate QC	RT-qPCR; Western Blotting (WB)
GENE INFORMATION	
Gene Name	CTSB cathepsin B [Homo sapiens (human)]
Official Symbol	CTSB
Synonyms	CTSB; cathepsin B; cathepsin B1; APP secretase; cysteine protease; amyloid precursor protein secretase; APPS; CPSB;
Gene ID	1508

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mRNA Refseq	NM_001908
Protein Refseq	NP_001899
MIM	116810
UniProt ID	P07858

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