

## Product datasheet for **TP310578M**

### Cathepsin B (CTSB) (NM\_147783) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human cathepsin B (CTSB), transcript variant 5, 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA	>RC210578 protein sequence
Clone or AA Sequence:	Red=Cloning site Green=Tags(s)

MWQLWASLCCLLVLANARSRPSFHPLSDELVNYVKNRNTTWQAGHNFYVNDMSYLKRLCGTFLGGPKPPQ  
RVMFTEDLKLPAFDAREQWPQCPTIKEIRDQGSCGSCWAFGAVEAISDRICHTNAHVSVEVAEDLLT  
CCGSMCGDGCNGGYPAEAWNFWTRKGLVSGGLYESHVGCPRYSIPPCEHHVNGSRPPCTGEGDTPKCSKI  
CEPGYSPTYKQDKHYGYNYSVSNSEKDIMAEIYKNGPVEGAFSVYSDFLLYKSGVYQHVTGEMMGGHAI  
RILGWGVENGTPYWLVANSWNTDWGDNGFFKILRGQDHCIESEVAGIPRTDQYWEKI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	35.9 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<u><a href="#">NP_680093</a></u>
Locus ID:	1508



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UniProt ID: [P07858](#), [A0A024R374](#)

RefSeq Size: 3857

Cytogenetics: 8p23.1

RefSeq ORF: 1017

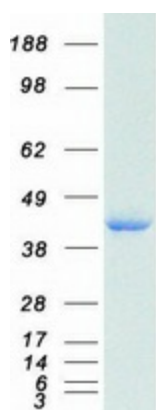
Synonyms: APPS; CPSB; RECEUP

**Summary:** 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. [provided by RefSeq, Sep 2020]

**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** Antigen processing and presentation, Lysosome

### Product images:



Coomassie blue staining of purified CTSB protein (Cat# [TP310578]). The protein was produced from HEK293T cells transfected with CTSB cDNA clone (Cat# [RC210578]) using MegaTran 2.0 (Cat# [TT210002]).