

## Product datasheet for PH322764

### Cathepsin B (CTSB) (NM\_147781) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	CTSB MS Standard C13 and N15-labeled recombinant protein (NP_680091)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC222764
Predicted MW:	37.8 kDa
Protein Sequence:	>RC222764 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)  XCGSSGPPSAACWCWMPGAGPLSIPCRMSWSTMSTNGIPRGRPGTTSTTWT*AT*RGYVVPVSWVGPSPH RELCLPRT*SCLQASMHGNNHGSVPPSKRSETRAPVAPAGPSGLWKPSLTGSASTPMRTSAWRCRRRTCS HAVAACVGTAVMVAILLKLGTSQEKAWFLVASMNPM*GADRTPSLPVSTTSTAPGPHARGREIPPSVAR SVSLATARPTNRTSTTDIPTASPIARRTSWPRSTKTAPWRELSLCIRTSCSTSQECTNTSPER*WVAMP SASWAGEWRMAHPTGWLPTPGTLTGVTMASLKYSEDRTIVESNQKWWLEFHAPISTGKR  <b>TRTRPLEQKLI SEEDLAANDILDYKDDDDKV</b>
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u><a href="#">NP_680091</a></u>
RefSeq Size:	3902
RefSeq ORF:	1017
Synonyms:	APPS; CPSB; RECEUP
Locus ID:	1508



[View online »](#)

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

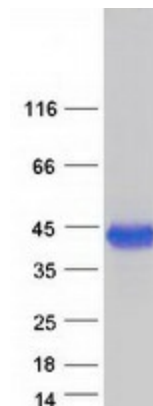
Cytogenetics: 8p23.1

**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# [TP322764]). The protein was produced from HEK293T cells transfected with CTSB cDNA clone (Cat# [RC222764]) using MegaTran 2.0 (Cat# [TT210002]).