# Recombinant Human CTSB protein, GST-tagged

**Cat. No.** CTSB-279H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Human CTSB protein(NP_001899.1)(82-333aa) was fused to GST-tagged at N-terminus and expressed in E. coli. |
| **Species** | Human |
| **Source** | E.coli |
| **ProteinLength** | Partial |
| **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. Multiple pseudogenes of this gene have been identified. 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. |

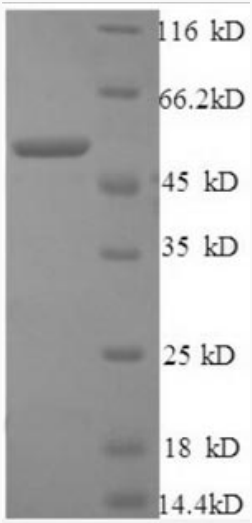
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| **Form** | If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0. |
| **Molecular Mass** | 54.6 kDa |
| **AA Sequence** | ASFDAREQWPQCPTIKEIRDQGSCGSCWAFGAVEAISDRICIHTNAHVSVEVSAEDL LTCCGSMCGDGCNGGYPAEAWNFWTRKGLVSGGLYESHVGCRPYSIPPCEHHVN GSRPPCTGEGDTPKCSKICEPGYSPTYKQDKHYGYNSYSVSNSEKDIMAEIYKNGP VEGAFSVYSDFLLYKSGVYQHVTGEMMGGHAIRILGWGVENGTPYWLVANSWNTD WGDNGFFKILRGQDHCGIESEVVAGIPRTD |
| **Purity** | Greater than 90% as determined by SDS-PAGE. |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Storage** | Store at -20°C upon receipt, aliquoting is necessary for mutiple use. Avoid repeated freeze-thaw cycles. |
| **Reconstitution** | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents. |

## GENE INFORMATION

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| **Gene Name** | CTSB |
| **Official Symbol** | CTSB |
| **Synonyms** | Amyloid precursor protein secretase; APP secretase; APPS; CATB_HUMAN; Cathepsin B heavy chain; Cathepsin B1; CathepsinB; CPSB; CTSB; cysteine |

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| | protease; OTTHUMP00000116009; OTTHUMP00000229510; OTTHUMP00000229511; OTTHUMP00000229512; OTTHUMP00000229514; OTTHUMP00000229515; OTTHUMP00000229516; Preprocathepsin B |
| **Gene ID** | 1508 |
| **mRNA Refseq** | NM_001908.5 |
| **Protein Refseq** | NP_001899.1 |
| **UniProt ID** | P07858 |
| **SDS-PAGE of CTSB-279H** |  |



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