

## Product datasheet for **TP303143L**

### Cathepsin L (CTSL) (NM\_001912) Human Recombinant Protein

#### Product data:

|                                       |  |
|---------------------------------------|--|
| Product Type:                         | Recombinant Proteins   |
| Description:                          | Recombinant protein of human cathepsin L1 (CTSL1), transcript variant 1, 1 mg  |
| Species:                              | Human  |
| Expression Host:                      | HEK293T  |
| Expression cDNA Clone or AA Sequence: | >RC203143 protein sequence<br><b>Red</b> =Cloning site <b>Green</b> =Tags(s)   |
|                                       | MNPTLILAAAFCLGIASATLTFDHSLEAQWTKWKAMHNRLYGMNEEGWRRRAVWEKNVKMIELHNQEYREGK<br>HSFTMAMNAFGDMTSEEFRQVMNGFQNRKPRKGKVFQEPLFYEAPRSVDWREKGYVTPVKNQGCWSCWA<br>FSATGALEGQMFRKTGRLISLSEQLVDCSGPQGNEGCNGGLMDYAFQYVQDNGGLDSEESYPYEATEES<br>CKYNPKYSVANDTGFVDIPKQEKALMKAVATVGPISVAIDAGHESFLFYKEGIYFEPDCSSEDMDHGVLV<br>VGYGFESTESDNNKYWLKNSWGEEWGMGGYVKMAKDRRNHCGIASAASYPTV |
|                                       | <b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b>   |
| Tag:                                  | C-Myc/DDK  |
| Predicted MW:                         | 35.8 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_001903</a></u>   |
| Locus ID:                             | 1514   |



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UniProt ID: [P07711](#), [A0A024R276](#)

RefSeq Size: 1730

Cytogenetics: 9q21.33

RefSeq ORF: 999

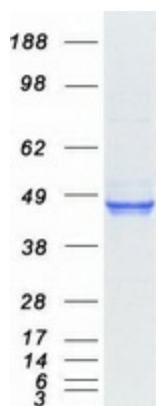
Synonyms: CATL; CTSL1; MEP

**Summary:** The protein encoded by this gene is a lysosomal cysteine proteinase that plays a major role in intracellular protein catabolism. Its substrates include collagen and elastin, as well as alpha-1 protease inhibitor, a major controlling element of neutrophil elastase activity. The encoded protein has been implicated in several pathologic processes, including myofibril necrosis in myopathies and in myocardial ischemia, and in the renal tubular response to proteinuria. This protein, which is a member of the peptidase C1 family, is a dimer composed of disulfide-linked heavy and light chains, both produced from a single protein precursor. Additionally, this protein cleaves the S1 subunit of the SARS-CoV-2 spike protein, which is necessary for entry of the virus into the cell. [provided by RefSeq, Aug 2020]

**Protein Families:** Druggable Genome, Protease

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

### Product images:



Coomassie blue staining of purified CTSL protein (Cat# [TP303143]). The protein was produced from HEK293T cells transfected with CTSL cDNA clone (Cat# [RC203143]) using MegaTran 2.0 (Cat# [TT210002]).