

Product datasheet for **SC331351**

Cathepsin S (CTSS) (NM_001199739) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cathepsin S (CTSS) (NM_001199739) Human Untagged Clone
Tag: Tag Free
Symbol: Cathepsin S
Vector: pCMV6-Entry (PS100001)
Fully Sequenced ORF: >SC331351 representing NM_001199739.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
ATGAAACGGCTGGTTTGTGTGCTCTTGGTGTGCTCCTCTGCAGTGGCACAGTTGCATAAAGATCCTACC
CTGGATCACCCTGGCATCTCTGGAAGAAAACCTATGGCAAACAATACAAGGAAAAGAATGAAGAAGCA
GTACGACGTCTCATCTGGGAAAAGAATCTAAAGTTTGTGATGCTTCAACCTGGAGCATTCAATGGGA
ATGCACTCATACGATCTGGGCATGAACCACCTGGGAGACATGGGTCTTGTGGTCTTCTCAGTGGCCAG
AGTGTGTGGGGCCCTGGAAGCACAGCTGAAGCTGAAAACAGGAAAGCTGGTGTCTCTCAGTGGCCAG
AACCTGGTGGATTGCTCAACTGAAAAATATGGAACAAGGCTGCAATGGTGGCTTCATGACAACGGCT
TTCCAGTACATCATTGATAACAAGGGCATCGACTCAGACGCTTCCCTATCCCTACAAGCCATGGATCAG
AAATGTCAATATGACTCAAAATATCGTGTGCCACATGTTCAAAGTACACTGAACTTCTTATGGCAGA
GAAGATGTCTGAAAGAAGCTGTGGCCAATAAAGGCCAGTGTCTGTTGGTGTAGATGCGCGTCATCCT
TCTTTCTCTCTACAGAAGTGGTGTCTACTATGAACCATCCTGTACTCAGAATGTGAATCATGGTGTGTA
CTTGTGGTTGGCTATGGTGTCTTAATGGGAAAGAATACTGGCTTGTGAAAAACAGCTGGGGCCACAAC
TTTGGTGAAGAAGGATATATTCGGATGGCAAGAAATAAAGGAAATCATTGTGGGATTGCTAGCTTCCC
TCTTACCCAGAAATCTAG
```

Restriction Sites: SgfI-MluI
ACCN: NM_001199739
Insert Size: 846 bp
OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).



[View online »](#)

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001199739.1](#)

RefSeq Size: 3957 bp

RefSeq ORF: 846 bp

Locus ID: 1520

UniProt ID: [P25774](#)

Cytogenetics: 1q21.3

Protein Families: Druggable Genome, Protease

Protein Pathways: Antigen processing and presentation, Lysosome

MW: 31.6 kDa

Gene Summary: The preproprotein encoded by this gene, a member of the peptidase C1 family, is a lysosomal cysteine proteinase that participates in the degradation of antigenic proteins to peptides for presentation on MHC class II molecules. The mature protein cleaves the invariant chain of MHC class II molecules in endolysosomal compartments and enables the formation of antigen-MHC class II complexes and the proper display of extracellular antigenic peptides by MHC-II. The mature protein also functions as an elastase over a broad pH range. When secreted from cells, this protein can remodel components of the extracellular matrix such as elastin, collagen, and fibronectin. This gene is implicated in the pathology of many inflammatory and autoimmune diseases and, given its elastase activity, plays a significant role in some pulmonary diseases. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, May 2020]
Transcript Variant: This variant (2) lacks an in-frame exon in the CDS, so encodes a shorter isoform (2), as compared to variant 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.