

Product datasheet for **RC233630**

Cathepsin S (CTSS) (NM_001199739) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cathepsin S (CTSS) (NM_001199739) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cathepsin S
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC233630 representing NM_001199739 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAACGGCTGGTTTGTGTGCTCTTGGTGTGCTCCTCTGCAGTGGCACAGTTGCATAAAGATCCTACCC
TGGATCACCCTGGCATCTCTGGAAGAAAACCTATGGCAAACAATACAAGGAAAAGAATGAAGAAGCAGT
ACGACGTCTCATCTGGGAAAAGAATCTAAAGTTTGTGATGCTTCACAACCTGGAGCATTCAATGGGAATG
CACTCATACGATCTGGGCATGAACCACCTGGGAGACATGGGTTCTTGTGGTGTCTCAGTGGCCAGAACCT
CTGTGGGGCCCTGGAAGCACAGCTGAAGCTGAAAACAGGAAAGCTGGTGTCTCAGTGGCCAGAACCT
GGTGGATTGCTCAACTGAAAAATATGGAACAAAGGCTGCAATGGTGGCTTCATGACAACGGCTTTCCAG
TACATCATTGATAACAAGGCATCGACTCAGACGCTTCCATCCCTACAAAGCCATGGATCAGAAATGTC
AATATGACTCAAAATATCGTGCTGCCACATGTTCAAAGTACACTGAACTTCTTATGGCAGAGAAGATGT
CCTGAAAGAAGCTGTGGCCAATAAAGGCCAGTGTCTGTTGGTGTAGATGCGCGTCATCCTTCTTTCTTC
CTCTACAGAAGTGGTGTCTACTATGAACCATCCTGTACTCAGAATGTGAATCATGGTGTACTTGTGGTTG
GCTATGGTGTCTTAATGGGAAAGAATACTGGCTTGTGAAAAACAGCTGGGGCCACAACCTTGGTGAAGA
AGGATATATTCGGATGGCAAGAAATAAAGGAAATCATTGTGGGATTGCTAGCTTTCCTCTTACCCAGAA
ATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC233630 representing NM_001199739
Red=Cloning site Green=Tags(s)

MKRLVCVLLVCSSAVAQLHKDPTLDHWHWLWKKTYGKQYKEKNEEAVRRLIWEKNLKFVMLHNLEHSMGM
 HSYDLGMNHLGDMGSCGACWAFSAVGALEAQLKLTGKLVSLSAQNLVDCSTEKYGNKGCNGGFMTTAFQ
 YIIDNKGIDSDASYPYKAMDQKQYDSKYRAATCSKYTELPGREDVLKEAVANKGPVSVGVGDARHPSFF
 LYRSGVYYEP SCTQNVNHGVLVVGYGDLNGKEYWLKNSWGHNFGEEGYIRMARNKGNHCGIASFPSTYPE
 I

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001199739

ORF Size: 843 bp

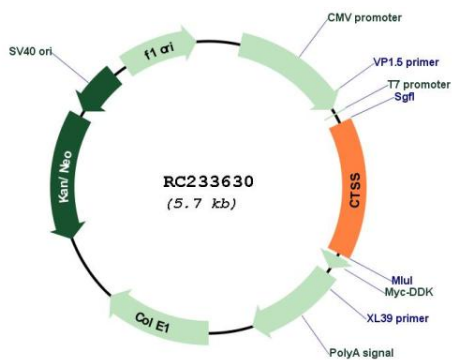
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

Reconstitution Method:	<ol style="list-style-type: none">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_001199739.2
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:	32.1 kDa
Gene Summary:	<p>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]</p>

Product images:



Circular map for RC233630