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Product datasheet for SC100267

Cathepsin L (CTSL) (NM_145918) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cathepsin L (CTSL) (NM_145918) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cathepsin L
Synonyms:	CATL; CTSL1; MEP
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_145918, the custom clone sequence may differ by one or more nucleotides

ATGAATCCTACACTCATCCTTGCTGCCTTTTGCCTGGGAATTGCCTCAGCTACTCTAACATTTGATCACA
GTTTAGAGGCACAGTGGACCAAGTGGAAGGCGATGCACAACAGATTATACGGCATGAATGAAGAAGGATG
GAGGAGAGCAGTGTGGGAGAAGAACATGAAGATGATTGAACTGCACAATCAGGAATACAGGGAAGGGAAA
CACAGCTTCACAATGGCCATGAACGCCTTTGGAGACATGACCAGTGAAGAATTCAGGCAGGTGATGAATG
GCTTTCAAAACCGTAAGCCCAGGAAGGGGAAAGTGTTCCAGGAACCTCTGTTTTATGAGGCCCCCAGATC
TGTGGATTGGAGAGAGAAAGGCTACGTGACTCCTGTGAAGAATCAGGGTCAGTGTGGTTCTTGTTGGGCT
TTTAGTGCTACTGGTGCTCTTGAAGGACAGATGTTCCGGAAAACTGGGAGGCTTATCTCACTGAGTGAGC
AGAATCTGGTAGACTGCTCTGGGCCTCAAGGCAATGAAGGCTGCAATGGTGGCCTAATGGATTATGCTTT
CCAGTATGTTCAGGATAATGGAGGCCTGGACTCTGAGGAATCCTATCCATATGAGGCAACAGAAGAATCC
TGTAAGTACAATCCCAAGTATTCTGTTGCTAATGACACCGGCTTTGTGGACATCCCTAAGCAGGAGAAGG
CCCTGATGAAGGCAGTTGCAACTGTGGGGCCCATTTCTGTTGCTATTGATGCAGGTCATGAGTCCTTCCT
GTTCTATAAAGAAGGCATTTATTTTGAGCCAGACTGTAGCAGTGAAGACATGGATCATGGTGTGCTGGTG
GTTGGCTACGGATTTGAAAGCACAGAATCAGATAACAATAAATATTGGCTGGTGAAGAACAGCTGGGGTG
AAGAATGGGGCATGGGTGGCTACGTAAAGATGGCCAAAGACCGGAGAAACCATTGTGGAATTGCCTCAGC
AGCCAGCTACCCCACTGTGTGA

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_145918 unedited
GTTCAAAATTTGTATACGACTCATATAGGGCGGCCGCGAATTCGCACGAGGCTCCGCAAC
CTTGAGCGGCATCCGTGGAGTGCGCCTGCGCAGCTACNACCGCAGCAGGAAAGCGCCGCC
GGCCAGGCCCAGCTGTGGCCGGACAGGGACTGGAAGAGAGGACGCGGTCGAGTTTTAAAA
CATGAATCCTACACTCATCCTTGCTGCCTTTTGCCTGGGAATTGCCTCAGCTACTCTAAC
ATTTGATCACAGTTTAGAGGCACAGTGGACCAAGTGGAAGGCGATGCACAACAGATTATA
CGGCATGAATGAAGAAGGATGGAGGAGAGCAGTGTGGGAGAAGAACATGAAGATGATTGA
ACTGCACAATCAGGAATACAGGGAAGGGAAACACAGCTTCACAATGGCCATGAACGCCTT
TGGAGACATGACCAGTGAAGAATTCAGGCAGGTGATGAATGGCTTTCAAAACCGTAAGCC
CAGGAAGGGGAAAGTGTTCCAGGAACCTCTGTTTTATGAGGCCCCCAGATCTGTGGATTG
GAGAGAGAAAGGCTACGTGACTCCTGTGAAGAATCAGGGTCAGTGTGGTTCTTGTTGGGC
TTTTAGTGCTACTGGTGCTCTTGAAGGACAGATGTTCCGGANAACTGGGAGGCTTATCTC
ACTGAGTGAGCAGAATCTGGTAGACTGCTCTGGGCCTCAAGGCAATGAAGGCTGCAATGG
TGGCCTAATGGATTATGCTTTCCAGTATGTTCAGGATAATGGAGGCCTGGACTCTGAGGA
ATCCTATCCATATGAGGGCACAGAAGAATCCCTGTAGTACATCCCCCAGTATTCTGTTGC
TAATGACACCGGCTTTTGTGGACATNCCTTTAGCAGGAGAAGCCCTGATGAAGGCAGTGC
ACCTGTGGGCCCCATTTCTGGTGTATGGATGCAGNCACTGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_145918 unedited
GAACCGCGGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTACATTTGAAAATTAAATTTTATTTAAACAGGGAAAAATTTATACATCC
TTTTAAAAACGAAAATGCAAAGTCAGTAAGGGAATCAATAATATAAACCTATTTATAGCA
GTAATTAAAATAGAGGGAACATTTACCAGGGGGAAAATATCACAGAATTCAAATCACACT
CGGATCTTCAATGATTCGAGGGGGTATCCGACACAGGGGGGGCTGGTAAACTGAAAATGA
ATTCCTCCCATGCATGCGCCATCCCCAGTCAAGTCCTTCCTTATCACCGTCCACCAGCTC
ACACAGTGGGGTAACTGGCTGCTGAGGCAATTCCACAATGGTTTCTCCGGTCTTTGGCCA
TTTTTACGTAGCCACCCATGCCCCATTCTTCACCCCAGCTGTTTTTCACCAGCCAATATT
TATTGGTATCTGATTCTGGGCTTTCAAATCCGTAGCCAACCACCAGCACACCATGATCCA
TGTCTTCACTGCTACAGTCTGGCTCAAAATAAATGCCTTCTTTATAGAACAGGAAGGACT
CATGACCTGCATCAATAGCAACAGAAATGGGCCCCACAGTTGCAACTGCCTTCATCAGGG
GCCTTCTCTGCTTAGGGATGTCCACAAAGCCGGTGTCATTAGCAACAGATACTTGGGATN
GACCTACAGGATTCCCCTGTTGCCTCATATGGATAGGATTNCCTCAAAGTCAGGGCTNCA
TTATCCTGAAACTACTGGAAAGCATATTCCTTTAGGCCACATTGCAGGCTTTAATTGCCT
TGAGGGCCAAAAAAGTCTACAAATTTTGCNACCTCAGGAAAAAGGCTCCCAGTTTTTCGG
AACATTGGCTTTAG

Restriction Sites: NotI-NotI

ACCN: NM_145918

Insert Size: 1500 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).

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_145918.1, NP_666023.1
RefSeq Size:	1487 bp
RefSeq ORF:	1002 bp
Locus ID:	1514
UniProt ID:	P07711
Cytogenetics:	9q21.33
Domains:	Pept_C1
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Antigen processing and presentation, Lysosome
Gene 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] Transcript Variant: This variant (2) has an alternate splice site in the 5' UTR, compared to variant 1. Variants 1-4 encode the same isoform (1).