

Product datasheet for SC119901

Cathepsin K (CTSK) (NM_000396) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cathepsin K (CTSK) (NM_000396) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cathepsin K
Synonyms:	CTS02; CTSO; CTSO1; CTSO2; PKND; PYCD
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119901 sequence for NM_000396 edited (data generated by NextGen Sequencing)

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ATGTGGGGGCTCAAGTTCTGCTGCTACCTGTGGTGAGCTTTGCTCTGTACCCTGAGGAG
ATACTGGACACCCACTGGGAGCTATGGAAGAAGACCCACAGGAAGCAATAAACAACAAG
GTGGATGAAATCTCTCGGCGTTTAATTTGGGAAAAAACCTGAAGTATATTTCCATCCAT
AACCTTGAGGCTTCTCTTGGTGTCCATACATATGAACTGGCTATGAACCACCTGGGGGAC
ATGACCAGTGAAGAGGTGGTTCAGAAGATGACTGGACTCAAAGTACCCCTGTCTCATTCC
CGCAGTAATGACACCCTTTATATCCCAGAATGGGAAGGTAGAGCCCCAGACTCTGTGCGAC
TATCGAAAGAAAGGATATGTTACTCCTGTCAAAAATCAGGGTCAGTGTGGTTCCTGTTGG
GCTTTTAGCTCTGTGGGTGCCCTGGAGGGCCAACCTCAAGAAGAAAACCTGGCAAACCTTA
AATCTGAGTCCCCAGAACCTAGTGGATTGTGTCTGAGAATGATGGCTGTGGAGGGGGC
TACATGACCAATGCCTTCCAATATGTGCAGAAGAACCGGGGTATTGACTCTGAAGATGCC
TACCCATATGTGGGACAGGAAGAGATTGTATGTACAACCAACAGGCAAGGCAGCTAAA
TGCAGAGGGTACAGAGAGATCCCCGAGGGGAATGAGAAAGCCCTGAAGAGGGCAGTGGCC
CGAGTGGGACCTGTCTGTGGCCATTGATGCAAGCCTGACCTCCTTCCAGTTTTACAGC
AAAGGTGTGATTATGATGAAAGCTGCAATAGCGATAATCTGAACCATGCGGTTTTGGCA
GTGGGATATGGAATCCAGAAGGGAAACAAGCACTGGATAATTA AAAACAGCTGGGGAGAA
AACTGGGAAACAAAGGATATATCCTCATGGCTCGAAATAAGAACAACGCCTGTGGCATT
GCCAACCTGGCCAGCTTCCCAAGATGTGA

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Clone variation with respect to NM_000396.3



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_000396 unedited GGTTCGACGATATTTGAACACGATCTCACTATAGGGCGGCCGGAATTCGCACGAGGGAA ACGAAGCCAGACAACAGATTTCCATCAGCAGGATGTGGGGCTCAAGTTCTGCTGCTAC CTGTGGTGAGCTTTGCTCTGTACCCTGAGGAGATACTGGACCCCACTGGGAGCTATGGA AGAAGACCCACAGGAAGCAATATAACAACAAGGTGGATGAAATCTCTCGGCGTTTAAATTT GGGAAAAAACCTGAAGTATATTTCCATCCATAACCTTGAGGCTTCTCTTGGTGCCATA CATATGAACTGGCTATGAACCACCTGGGGACATGACCAGTGAAGAGGTGGTTCCAGAAGA TGA CTGGACTCAAAGTACCCCTGTCTCATTCCCGCAGTAATGACACCCCTTATATCCCAG AATGGGAAGGTAGAGCCCCAGACTCTGTGCGACTATCGAAAAGAAAGGATATGTTACTCCTG TCAAAAATCAGGGTCAGTGTGGTTCCTGTTGGGCTTTTAGCTCTGTGGTGCCCTGGAGG GCCAACTCAAGAAGAAAAGTGGCAAACTCTTAAATCTGAGTCCCCAGAACCTAGTGGATT GTGTGTCTGAGAATGATGGCTGTGGAGGGGGCTACATGACCAATGCCTTCCAATATGTGC AGAAGAACCGGGTATTGACTCTGAAGATGCCTACCCATATGTGGGACAGGAAGAGAGTT GTATGTACAACCCACAGCAAGGCAGCTAAATGCANGAGGTACAGAGAGATCCCCCGAG GGAAATGAGAAGCCCTGAAGAAGGCAGTGGCCCCGAGTGGGACCTGTCTCTGTGGCCATT TGATGCAGCCTGCACTCCTTTCAGTTTACAGCAAAAAGTGTGATTATGATGAAAGCTGCC ATAGCGATAATCTGAACCCATGCGG</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_000396 unedited ACAGGGAGCAAAATACTTTATTTCAAAGTGCAAAGAAGGGGAAGACAAATCACATTTCT TTTTATCATGTAACTTGTACCAAAGACTTATGAATAGATTTATGAATTGGAGTAGAAAA CATAGACATTTCTACCTTGAGGATATAGAAGGGAAGTGAAGTGAAGTGAAGTGAAGTGA CCTAGTCTCTAGGGTGCTTAAAGCTAACTAGTCCCGTGAATGAGAATCTAACCTATGTG AAAATCTCCAGCCTGTACCTGTACAGCATCAGCCCTGGGACAACACAGTCAGGGGCAGGC TG TAGTCACATCTCTTAGCCTAAGAGTACACAGCTGTCAGGGAAAAGTCCCTGATGGCCACA GTGAAAAAGGTGATGGGTGGAGAGAAGCAAAGTAGGAAGGATCATTTGAAGCACAAAACAA ATGGGGAAAGTGAACAGACAATCTCAGTATCACCACATCTGCTTCAAAAATAGCACACCA ACTCCCTTCAAAGTGCATCGTTACACTGCACCATCGTGGAAAGATATGGAAGAGCANGAT GGATTTGGCTGGCTGGAGTCACATCTTGGGGAAGCTGGCCAGGTTGGCATGCCACAGGCG TTGTCCTATTTTCGAGCCATGAGAATATCCTTTGTTTCCAGTTTTCTCCAGCTGTTTTT ATTATCCAGTGTGTTCCCTTCTGATTCCTATCCCAGTGAACCCGAGGTTCCAGATAT CGTTATGCAGCTTTATCATATACACCCTTGTGAAAAGTGAAGAGGCAGGCTGGATCA ATGGCCCAAAACCCGGTCCCACTGGGCCCTGCCCTTTTAGGGCCTTTTAATTCCCCTGGGG ACCTTTTTGACCCCTTCTTTAATTGGCTCGCCTGGNNGGGGTGACAAACACCTTTTTCT GGCCAAGTGTGGGAGGCATTTATGATACAACACCCCGCTCTTGCACATTGTGAAGGATG GTCCTTGGCCCCCTCCAGATTTTTCTCAACACATATCCACAGTTTGGGGATCCAATAAG AAGTCACATCTTCTG</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_000396
Insert Size:	1730 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:	<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_000396.2 , NP_000387.1
RefSeq Size:	1702 bp
RefSeq ORF:	990 bp
Locus ID:	1513
UniProt ID:	P43235
Cytogenetics:	1q21.3
Domains:	Pept_C1
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Lysosome
Gene Summary:	<p>The protein encoded by this gene is a lysosomal cysteine proteinase involved in bone remodeling and resorption. This protein, which is a member of the peptidase C1 protein family, is predominantly expressed in osteoclasts. However, the encoded protein is also expressed in a significant fraction of human breast cancers, where it could contribute to tumor invasiveness. Mutations in this gene are the cause of pycnodysostosis, an autosomal recessive disease characterized by osteosclerosis and short stature. [provided by RefSeq, Apr 2013]</p>