

Product datasheet for **RC204047**

Cathepsin F (CTSF) (NM_003793) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cathepsin F (CTSF) (NM_003793) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cathepsin F
Synonyms:	CATSF; CLN13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC204047 representing NM_003793
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGCCTGGCTGCGCTCCTGTGCTGCTGGGGCTGCTCCCGGGCGCAGTGGCCGCCCCCGCCAGC
 CCCGAGCCGCCAGCTTTCAAGCCTGGGGCCCGCGTCCCGGAGCTGCTGGCGCCACCCGCTTCGCGCT
 GGAGATGTTCAACCGCGCCGGGCTGCGGGGACGCGGGCCGTGCTGGGCCTTGTGCGCGGCCGCGTCCGC
 CGGGCGGGTCAAGGGTGTACTCCCTGGAGGCCACCCTGGAGGAGCCACCCTGCAACGACCCCATGG
 TGTGCCGCTCCCGTGTCCAAGAAAACCTGCTGCTGCGCTTCAAGTCTGGATGAGCTCGGAAGACA
 CGTGTGCTGCGGAAGGACTGTGGCCAGTGGACACCAAGGTTCCAGGTGCTGGGAGCCCAAGTCAAGC
 TTAAGTCAAGGCTCAGCCATGATTTCTTCTGTCCAAAACCATCCAGACAACAGAAACGAGACTTTCA
 GCTCAGTCATTTCCCTGTTGAATGAGGATCCCCTGTCCAGGACTTGCCTGTGAAGATGGCTTCAATCTT
 CAAGAATTTGTCATTACCTATAACCGGACATATGAGTCAAAGGAAGAAGCCCGGTGGCGCTGTCCGTC
 TTTGTCAATAACATGGTGCAGCACAGAAGATCCAGGCCCTGGACCGTGGCACAGCTCAGTATGGAGTCA
 CCAAGTTCAGTGATCTCACAGAGGAGGAGTCCGCACTATCTACCTGAATACTCTCTGAGGAAAGAGCC
 TGGCAACAAGTGAAGCAAGCAAGTCTGTGGGTGACCTCGCCCCACCTGAATGGGACTGGAGGAGTAAG
 GGGGCTGTCAAAAAGTCAAAGACCAGGGCATGTGTGGCTCCTGCTGGGCCTTCTCAGTCACAGGCAATG
 TGGAGGGCCAGTGGTTTCTCAACCAGGGGACCCTGCTCTCCCTCTCTGAACAGGAGCTCTGGACTGTGA
 CAAGATGGACAAGGCTGCATGGGCGCTTGCCTCCAATGCCTACTCGCCATAAAGAATTTGGGAGGG
 CTGGAGACAGAGGATGACTACAGCTACCAGGGTACATGCAGTCTGCAACTTCTCAGCAGAGAAGGCCA
 AGGTCTACATCAATGACTCCGTGGAGCTGAGCCAGAACGAGCAGAAGCTGGCAGCCTGGTGGCCAAAG
 AGGCCAATCTCGTGGCCATCAATGCCTTTGGCATGCAGTTTTACCGCCACGGGATCTCCCGCCCTCTC
 CGGCCCTCTGCAGCCCTTGGCTCATTGACCATGCGGTGTTGCTTGTGGGCTACGGCAACCCTCTGACG
 TTCCCTTTTGGCCATCAAGAACAGCTGGGCACTGACTGGGGTGAAGGGTTACTACTACTTGCATCG
 TGGGTCCGGGCTGTGGCGTGAACACCATGGCCAGCTCGGGGTGGTGGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204047 representing NM_003793
 Red=Cloning site Green=Tags(s)

MAPWLQLLSLLGLLPGAVAAPAQPRAASFQAWGPPSPELLAPTRFALEMFNRRGAAGTRAVLGLVRGRVR
 RAGQGSLSYLEATLEEPPCNDPMVCRLPVSKKTLCSFQVLDLGRHVLLRKDCGPVDTKVPGAGEPKSA
 FTQGSAMISSLSQNHPDNRNETFSSVISLLNEDPLSQDLPVKMASIFKNFVITYNRTYESKEEARWRLSV
 FVNNMVRQKIQALDRGTAQYGVTKFSDLTEEFRTIYLNLLRKEPGNKMKAQKSVGDLAPPEWDWRK
 GAVTKVKDQGMCGSCWAFSVTGNVEGQWFLNQGTLTLLSEQLLDCDKMDKACMGGLPSNAYSIAIKNLGG
 LETEDDYSYQGHMQSCNFSAEKAKVYINDSVELSQNEQKLAAWLAKRGPISVAINAFGMQFYRHGISRPL
 RPLCSPWLIDHAVLLVGYGNRSDVPFWAIKNSWGTDWGEKGYYYLHRGSGACGVNTMASSAVVD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8112_g06.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_003793

ORF Size: 1452 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:
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_003793.4](#)

RefSeq Size: 2032 bp

RefSeq ORF: 1455 bp

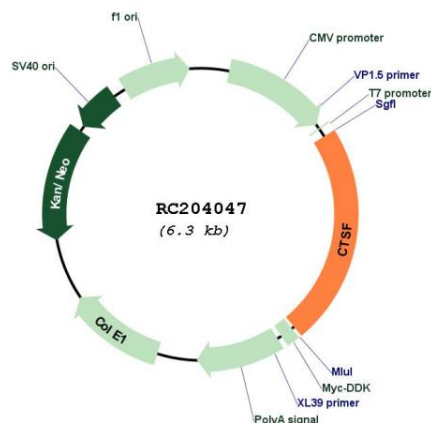
Locus ID: 8722

UniProt ID: [Q9UBX1](#)

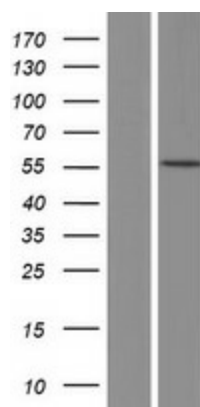
Cytogenetics: 11q13.2

Domains:	Pept_C1
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Lysosome
MW:	53.2 kDa
Gene Summary:	<p>Cathepsins are papain family cysteine proteinases that represent a major component of the lysosomal proteolytic system. Cathepsins generally contain a signal sequence, followed by a propeptide and then a catalytically active mature region. The very long (251 amino acid residues) proregion of the cathepsin F precursor contains a C-terminal domain similar to the pro-segment of cathepsin L-like enzymes, a 50-residue flexible linker peptide, and an N-terminal domain predicted to adopt a cystatin-like fold. The cathepsin F proregion is unique within the papain family cysteine proteases in that it contains this additional N-terminal segment predicted to share structural similarities with cysteine protease inhibitors of the cystatin superfamily. This cystatin-like domain contains some of the elements known to be important for inhibitory activity. CTSF encodes a predicted protein of 484 amino acids which contains a 19 residue signal peptide. Cathepsin F contains five potential N-glycosylation sites, and it may be targeted to the endosomal/lysosomal compartment via the mannose 6-phosphate receptor pathway. The cathepsin F gene is ubiquitously expressed, and it maps to chromosome 11q13, close to the gene encoding cathepsin W. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RC204047



Western blot validation of overexpression lysate (Cat# [LY418428]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204047 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).