

Product datasheet for **RG200719**

Cathepsin D (CTSD) (NM_001909) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cathepsin D (CTSD) (NM_001909) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cathepsin D
Synonyms:	CLN10; CPSD; HEL-S-130P
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200719 representing NM_001909 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGCCCTCCAGCCTTCTGCCGCTCGCCCTCTGCCTGCTGGCTGCACCCGCCTCCGCGCTCGTCAGGA
TCCCGTGCACAAGTTCACGTCCATCCGCCGACCATGTCGGAGGTTGGGGCTCTGTGGAGGACCTGAT
TGCCAAAGGCCCGTCTCAAAGTACTCCAGGCGGTGCCAGCCGTGACCGAGGGGCCATCCCGAGGTG
CTCAAGAACTACATGGACGCCAGTACTACGGGGAGATTGGCATCGGGACGCCCCCAGTGCTTACAG
TCGTCTTCGACACGGGCTCCTCAACCTGTGGTCCCCTCCATCCACTGCAAACCTGCTGGACATCGCTTG
CTGGATCCACCACAAGTACAACAGCGACAAGTCCAGCACCTACGTGAAGAATGGTACCTCGTTTGACATC
CACTATGGCTCGGGCAGCCTCTCCGGGTACCTGAGCCAGGACACTGTGTGGTGCCTGCCAGTCAGCGT
CGTCAGCCTCTGCCCTGGGCGGTGTCAAAGTGGAGAGGAGGTCTTTGGGGAGGCCACCAAGCAGCCAGG
CATCACCTTATCGCAGCCAAGTTTCATGGCATCCTGGGCATGGCCTACCCCGCATCTCCGTCAACAAC
GTGCTGCCCGTCTTCGACAACCTGATGCAGCAGAAGCTGGTGGACCAGAACATCTTCTCCTTCTACCTGA
GCAGGGACCCAGATGCGCAGCCTGGGGGTGAGCTGATGCTGGTGGCACAGACTCCAAGTATTACAAGGG
TTCTCTGTCTACCTGAATGTCACCCGCAAGGCCACTGGCAGGTCCACCTGGACCAGGTGGAGGTGGCC
AGCGGGCTGACCCTGTGCAAGGAGGGCTGTGAGGCCATTGTGGACACAGGCACTCCCTCATGGTGGGCC
CGGTGGATGAGGTGCGCAGCTGCAGAAGGCCATCGGGGCGTGGCGCTGATTCAGGGCAGTACATGAT
CCCCTGTGAGAAGGTGTCCACCCTGCCCGCATCACACTGAAGCTGGGAGGCAAAGGCTACAAGCTGTCC
CCAGAGGACTACAGCTCAAGGTGTGCGAGGCCGGAAGACCCTCTGCCTGAGCGGCTTTCATGGGCATGG
ACATCCCGCCACCCAGCGGGCCACTCTGGATCCTGGGCGACGTCTTCATCGGCCGCTACTACACTGTGT
TGACCGTGACAACAACAGGGTGGGCTTCGCCGAGGCTGCCCGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG200719 representing NM_001909
 Red=Cloning site Green=Tags(s)

MQPSSLLPLALCLLAAPASALVRIPLHKFTSIRRTMSEVGGSVEDLIAKGPVSKYSQAVPAVTEGPIPEV
 LKNYMDAQYYGEIGIGTPPQCFTVVFDTGSSNLWVPSIHCKLLDIACWIHHKYNSDKSSTYVKNGTSFDI
 HYGSGSLSGYLSQDTVSVPCQSASSASALGGVKVERQVFGATKQPGITFIAAKFDGILGMAYPRISVNN
 VLPVFDNLMQQKLVQNIFFSYLSRDPDAQPGGELMLGGTDSKYKGSLSYLNVTRKAYWVHLDQVEVA
 SGLTLCKEGCEAIVDTGTSLMVGVPVDEVRELQKAIGAVPLIQGEYMIPEKVVSTLPAITLKLGGKGYKLS
 PEDYTLKYSQAGKTLCLSGFMGMDIPPPSGPLWILGDVFIGRYTYVFRDNNRVGFEEAARL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001909

ORF Size: 1236 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_001909.5](#)

RefSeq Size: 2205 bp

RefSeq ORF: 1239 bp

Locus ID: 1509

UniProt ID: [P07339](#)

Cytogenetics: 11p15.5

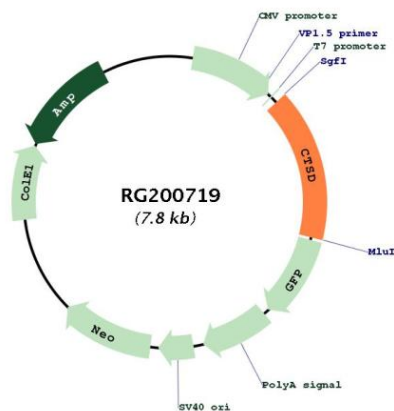
Domains: asp

Protein Families: Druggable Genome, Protease

Protein Pathways: Lysosome

Gene Summary: This gene encodes a member of the A1 family of peptidases. The encoded preproprotein is proteolytically processed to generate multiple protein products. These products include the cathepsin D light and heavy chains, which heterodimerize to form the mature enzyme. This enzyme exhibits pepsin-like activity and plays a role in protein turnover and in the proteolytic activation of hormones and growth factors. Mutations in this gene play a causal role in neuronal ceroid lipofuscinosis-10 and may be involved in the pathogenesis of several other diseases, including breast cancer and possibly Alzheimer's disease. [provided by RefSeq, Nov 2015]

Product images:



Circular map for RG200719