

Product datasheet for RC209072

Chymotrypsin like protease (CTRL) (NM_001907) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Chymotrypsin like protease (CTRL) (NM_001907) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Chymotrypsin like protease
Synonyms:	CTRL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209072 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGGATCGCC

ATGTTGCTGCTCAGCCTGACCCTAAGCCTGGTTCTCCTCGGCTCCTCTGGGGCTGCGGCATTCTGCCA
TCAAACCGGCACTGAGCTTCAGCCAGAGGATTGTCAACGGGGAGAATGCAGTGTTGGGCTCTGGCCCTG
GCAGGTGTCCCTGCAGGACAGCAGCGGCTCCACTTCTGCGGTGGTTCTCTCATCAGCCAGTCCTGGGTG
GTCAGTGTGCCACTGCAATGTCAGCCCTGGCCGCAATTTTGTGTCTGGGCGAGTATGACCGATCAT
CAAACGCAGAGCCCTTGAGGTTCTGTCCGTCTCTCGGGCCATTACACACCCTAGCTGGAACCTACCAC
CATGAACAATGACGTGACGCTGCTGAAGCTCGCCTCGCCAGCCAGTACACAACACGCATCTCGCCAGTT
TGCTTGGCATCCTCAAACGAGGCTCTGACTGAAGGCTCACGTGTGTACCACCGGCTGGGGTCGCCTCA
GTGGCGTGGGCAATGTGACACCAGCACATCTGCAGCAGGTGGCTTTGCCCTGGTCACTGTGAATCAGTG
CCGGCAGTACTGGGGCTCAAGTACTGACTCCATGATCTGTGCAGGTGGCGCAGGTGCCTCCTCGTGC
CAGGGTACTCCGGAGGCCCTTGTCTGCCAGAAGGGAAACACATGGGTGCTTATTGGTATTGTCTCCT
GGGCACCAAAAAGTCAATGTGCGCGCACCTGCTGTGTATACTCGAGTTAGCAAGTTGACACCTGGAT
CAACCAGGTCATAGCCTACAAC

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC209072 protein sequence
 Red=Cloning site Green=Tags(s)

MLLLSLTSLVLLGSSWGCIPAIKPAISFSQRIVNGENAVLGSWPQVSLQDSSGFHFCGGSLISQSWV
 VTAAHNCNVSPGRHFVVLGEYDRSSNAEPLQVLSVRAITHPSWNSTTMNNDVTLKLASPAQYTTTRISPV
 CLASSNEALTEGLTCVTTGWGRLSGVGNVTPAHLQOVALPLVTVNQCRQYWGSSITDSMICAGGAGASSC
 QDSDGGPLVCQKNTWVLIGIVSWGTKNCNVRAPAVYTRVSKFSTWINQVIAYN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6355_h04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001907

ORF Size: 792 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_001907.3](#)

RefSeq Size: 1197 bp

RefSeq ORF: 795 bp

Locus ID: 1506

UniProt ID: [P40313](#)

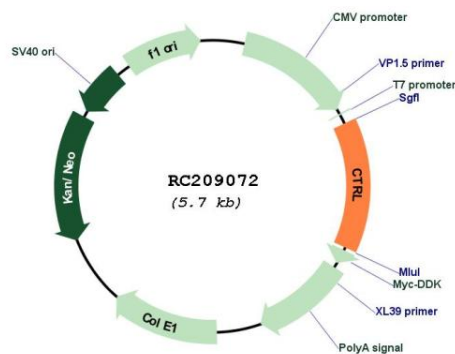
Cytogenetics: 16q22.1

Protein Families: Druggable Genome, Protease

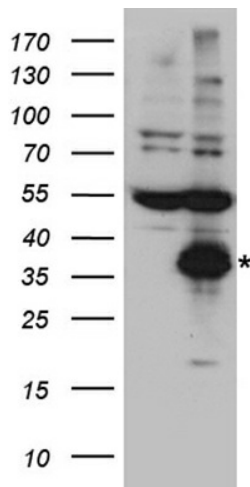
MW: 28 kDa

Gene Summary: This gene encodes a serine-type endopeptidase with chymotrypsin- and elastase-2-like activities. The gene encoding this zymogen is expressed specifically in the pancreas and likely functions as a digestive enzyme. [provided by RefSeq, Sep 2016]

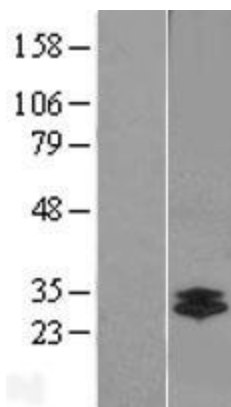
Product images:



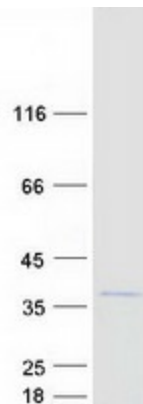
Circular map for RC209072



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CTRL (Cat# RC209072, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CTRL antibody (Cat# [TA890107]). Positive lysates [LY419665] (100ug) and [LC419665] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419665]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209072 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CTRL protein (Cat# [TP309072]). The protein was produced from HEK293T cells transfected with CTRL cDNA clone (Cat# RC209072) using MegaTran 2.0 (Cat# [TT210002]).