

Product datasheet for **MG227342**

Ctsb (NM_007798) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ctsb (NM_007798) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Ctsb
Synonyms: CB
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG227342 representing NM_007798
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTGGTGGTCCTTGATCCTTCTTTCTTGCCTGCTGGCACTGACCACTGCCATGACAAGCCTTCTTCC
 ACCCGCTGTCGGATGACCTGATTAATACTATCAACAAACAGAATACAACATGGCAGGCTGGACGCAACTT
 CTACAATGTTGACATAAGCTATCTGAAGAAGCTGTGTGGCACTGTCTGGGTGGACCCAACTGCCAGGA
 AGGTTGCGTTCGGTGAGGACATAGATCTACCTGAAACCTTTGATGCACGGGAACAATGGTCCAAGTCC
 CGACATTGGACAGATTAGAGACCAGGGCTCCTGCGGCTCTTGTGGGCATTTGGGCAGTGAAGCCAT
 TTCTGACCGAACCTGCATTCACACCAATGGCCGAGTCAACGTGGAGGTGTCTGCTGAAGACTGCTTACT
 TGCTGTGGTATCCAGTGTGGGACGGCTGTAATGGTGGCTATCCCTCTGGAGCATGGAGCTTCTGGACAA
 AAAAAGGCCTGGTTTCAGGTGGAGTCTACAATTCTCATGTAGGCTGCTTACCATACACCATCCCTCCCTG
 CGAGCACCATGTCAATGGCTCCCGTCCCCATGCACTGGAGAAGGAGATACTCCAGGTGCAACAAGAGC
 TGTGAAGCTGGCTACTCCCATCCTACAAAGAGGATAAGCACTTTGGGTACACTTCTACAGCGTGTCTA
 ACAGTGTGAAGGAGATCATGGCAGAAATCTACAAAATGGCCAGTGGAGGGTGCCTTACTGTGTTTTTC
 TGACTTCTTGACTTACAAATCAGGAGTATACAAGCATGAAGCCGGTGATATGATGGTGGCCACGCCATC
 CGCATCTGGGCTGGGAGTAGAGAATGGAGTTCCTACTGGCTGGCAGCCAACCTTGGAACTTGACT
 GGGGTGATAATGGCTTCTTTAAAATCCTCAGAGGAGAGAACCCTGTGGCATTGAATCAGAAATTGTGCC
 TGAATCCCACGCACTGACCACTACTGGGAAGATTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG227342 representing NM_007798
 Red=Cloning site Green=Tags(s)

MWWSLILLSCLLAL TSAHDKPSFHPLSDDLIN YINKQNTTWQAGRNFYNVDI SYLKKLCGTVLGGPKLPG
 R VAFGEDIDL PETFDAREQWSNCP TIGQIRDQSGSCGWAFGAVEAISDR TCIHTNGRVNVEVSAEDLLT
 CCGIQCGDGCNGGYP SGAWSFWTKKGLVSGGVYN SHVHGCLPYTIPPCEHHVNGSRPPCTGEGDTPRCNKS
 CEAGYSPSYKEDKHFGYTSYSVSN SVKEIMAEIYKNGPVEGAFTVFSDFLTYKSGVYKHEAGDMMGGHAI
 RILGWGVENGVPYWLAANSWNL DWGDN GFFKILRGENHCGIESEIVAGIPRTDQYWGRF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_007798

ORF Size: 1017 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_007798.3](#), [NP_031824.1](#)

RefSeq Size: 4756 bp

RefSeq ORF: 1020 bp

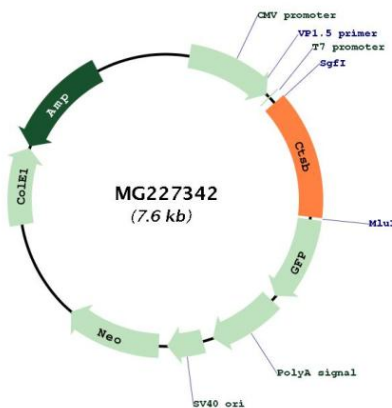
Locus ID: 13030

UniProt ID: [P10605](#)

Cytogenetics: 14 33.24 cM

Gene Summary: This gene encodes a member of the peptidase C1 family and preproprotein that is proteolytically processed to generate multiple protein products. These products include the cathepsin B light and heavy chains, which can dimerize to generate the double chain form of the enzyme. This enzyme is a lysosomal cysteine protease with both endopeptidase and exopeptidase activity that may play a role in protein turnover. Homozygous knockout mice for this gene exhibit reduced pancreatic damage following induced pancreatitis and reduced hepatocyte apoptosis in a model of liver injury. Pseudogenes of this gene have been identified in the genome. [provided by RefSeq, Aug 2015]

Product images:



Circular map for MG227342