

## Product datasheet for **MG215191**

### Ctsh (NM\_007801) Mouse Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | Ctsh (NM_007801) Mouse Tagged ORF Clone                                     |
| Tag:                      | TurboGFP  |
| Symbol:                   | Ctsh  |
| Synonyms:                 | AL022844  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)   |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| ORF Nucleotide Sequence:  | >MG215191 representing NM_007801<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGGGCTGCGCTGCCGCTGCTGTGCGCTGGGGCTGGCTGCTGAGTACTGGGGCCACCGCCGAGCTGA  
CCGTGAACGCCATAGAAAAGTTTCACCTTAAGTCATGGATGAAACAGCATCAAAGACGTACAGCTCGGT  
GGAGTACAACCACAGACTGCAGATGTTTGCCAACAACCTGGAGGAAGATTCAGCCACAACCAGAGGAAC  
CACACATTTAAAATGGCATTGAACCACTTTTCAGATATGAGCTTTGCTGAAATAAAACACAAATTCCTTT  
GGTCAGAGCCTCAGAATTGCTCAGCCACCAAAAGTAACCTCCGAGGTACAGGCCCTACCCTTCCTC  
CATGGACTGGAGGAAGAAAGGAAATGTTGTTTCGCCAGTGATAAATCAGGGGGCCTGTGGCAGCTGCTGG  
ACTTTCTCTACCACGGGGGCCCTAGAGTCAGCTGTGGCTATTGCCAGTGGGAAAATGCTGTCTTTGGCTG  
AGCAGCAGCTGGTGGATTGTGCCAAGCCTTCAACAATCATGGCTGCAAAGGAGGTCTCCCCAGCCAGGC  
CTTCGAGTACATCCTATAACAACAAGGCATCATGGAAGAAGACAGCTACCCTTACATAGGCAAGGATAGT  
TCATGCAGATTCAACCCCAAAAAGCTGTTGCATTGTCGAAGAATGTTGTCAACATCACACTCAATGACG  
AGGCTGCAATGGTTGAGGCTGTGGCTCTATAACAACCTGTGAGCTTCGCCTTTGAGGTGACTGAAGATTT  
TTTGATGTATAAAAAGTGGCGTCTACTCCAGTAAATCCTGTCATAAACTCCAGATAAAGTAAACCATGCA  
GTCCTGGCGGTTGGCTATGGAGAACAAGTGGATTACTCTACTGGATTGTGAAAACTCTTGGGGTCCC  
AGTGGGGGAGAATGGGTACTTCTCATTGAACGTGGGAAGAACATGTGTGGCCTGGCTGCTTGTGCCTC  
CTATCCCATTCCTCAGGTA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG215191 representing NM\_007801  
Red=Cloning site Green=Tags(s)

MWAALPLLCAGAWLLSTGATAELTVNAIEKFHFKSWMKQHQQKTYSSVEYNHRLQMFANNWRKIQAHNQRN  
 HTFKMALNQFSDMSFAEIKHKFLWSEPQNCSATKSNYLRGTGPYPSSMDWRKKGNNVSPVINQGACGSCW  
 TFSTTGALESVAIASGKMLSLAEQQLVDCAQAFNNHGCKGGLPSQAFYILYNKGI MEEDSYPIYIGKDS  
 SCRFPNQKAVAFVKNVVNITLNDEAAMVEAVALYNPVSFAFEVTEDFLMYKSGVYSSKSKCHKTPDKVNHA  
 VLAVGYGEQNGLLYWIIVKNSWGSQWGENGYFLIERGKNMCGLAACASYPQPQV

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_007801

**ORF Size:** 999 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\\_007801.2](#), [NP\\_031827.2](#)

**RefSeq Size:** 1627 bp

**RefSeq ORF:** 1002 bp

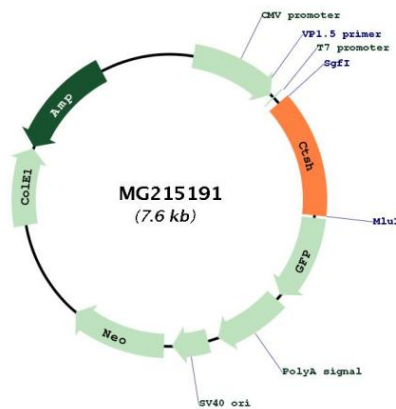
**Locus ID:** 13036

**UniProt ID:** [P49935](#)

**Cytogenetics:** 9 47.4 cM

**Gene Summary:** This gene encodes a member of the peptidase C1 (papain) family of cysteine proteases. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate multiple protein products. These products include the cathepsin H mini, heavy, and light chains. In rat and human, these three chains can associate to form the mature enzyme, which has both aminopeptidase and endopeptidase activities. Homozygous knockout mice for this gene exhibit impaired lung surfactant processing and reduced tumorigenesis in a pancreatic cancer model. Multiple pseudogenes of this gene have been identified in the genome. [provided by RefSeq, Aug 2015]

## Product images:



Circular map for MG215191