

## Product datasheet for **MR220973**

### **Cma1 (NM\_010780) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Cma1 (NM\_010780) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Cma1  
**Synonyms:** Mcp; Mcp-; Mcp-5; Mcp5; Mcpt; Mcpt5; MMCP-; MMCP-5  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR220973 representing NM\_010780  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGCCTGCAGCAGCCCTGAGGAGGCCCTCTGAGAGGATGCATCTTCTACTTTCATCTGCTGCTCC  
TTCTCCTGGGTTCCAGCACAAAGCTGGAGAGATCATTGGAGGCACGGAGTGCATACCACACTCCCGCCC  
CTACATGGCCTATCTGAAATTGCACTTCTGAGAACTACCTGTCGGCCTGCAGTGGCTTCTGATAAGA  
AGAACTTTGTGCTGACTGCAGCTCACTGTGCGGAAGGTCTATAACAGTCTCTAGGAGCCATAACA  
AAACATCTAAAGAAGACACGTGGCAGAAGCTTGAGGTGAAAAGCAATTCCTTCATCCAAAATATGATGA  
GAATTTGGTTGTCCACGACATCATGCTACTGAAGTTGAAGGAGAAAGCCAAGCTAACCTAGGTGTGGGA  
ACCCTCCCACTCTCTGCCAATTCAACTTTATCCACCCGGGAGAATGTGCAGGGCAGTTGGCTGGGGCA  
GAACAAACGTGAATGAGCCAGCCTCCGACACACTGCAGGAAGTAAAGATGAGACTCCAGGAGCCCAAGC  
CTGCAAACTTCACCAGTTTTTCGACACAATTCAGCTGTGTGTGGCAACCCCAAGAAGATGCAAAAT  
GTATAAAGGGAGACTCTGGAGGACCTCTGCTGTGTGTGGGATAGCCCAAGGCATTGCATCCTATGTAC  
ATCGGAATGCAAAGCCCCCTGCTGTCTTTACCAGAATCTCCATTACAGGCCCTGGATCAATAAGATCTT  
GAGGGAGAAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >MR220973 representing NM\_010780  
 Red=Cloning site Green=Tags(s)

MKPAAALRRPSERMHLLTLHLLLLLLGSSTKAGEIIGGTECIPHSRPMAYLEIVTSENYSACSGFLIR  
 RNFVLTAAHCAGRSITVLLGAHNKTSKEDTWQKLEVEKQFLHPKYDENLVVHDIMLLKLKEKAKLTLGVG  
 TLPLSANFNFIPPGRMCRAVWGRTNVNEPASDTLQEVKMLRQEPQACKHFTSFRHNSQLCVGNPKKMQN  
 VYKGDSSGGLLCAGIAQGIASYVHRNAKPPAVFTRISHYRPWINKILREN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9007\\_a04.zip](https://cdn.origene.com/chromatograms/mm9007_a04.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\_010780

**ORF Size:** 780 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\\_010780.2](#), [NP\\_034910.1](#)

**RefSeq Size:** 1086 bp

**RefSeq ORF:** 744 bp

**Locus ID:** 17228

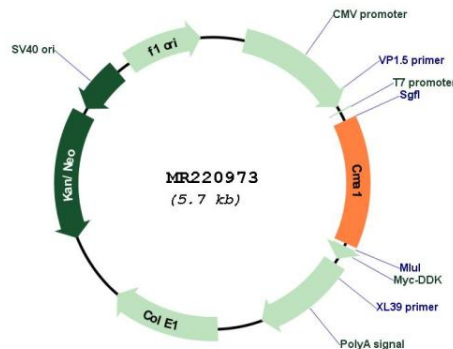
**UniProt ID:** [P21844](#)

**Cytogenetics:** 14 28.19 cM

**MW:** 29.5 kDa

**Gene Summary:** This gene encodes a serine protease that belongs to the peptidase family S1. It is expressed in mast cells and is thought to function in the degradation of the extracellular matrix, the regulation of submucosal gland secretion, and the generation of vasoactive peptides. The encoded preproprotein undergoes proteolytic processing to generate a functional enzyme with elastase-like activity. Mice lacking the encoded protein exhibit significant attenuation of ischemia-reperfusion injury of the skeletal muscle. This gene is located in a cluster of related mast cell protease genes on chromosome 14. [provided by RefSeq, Nov 2015]

## Product images:



Circular map for MR220973