

## Product datasheet for **MG201025**

### **Cst10 (BC048364) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Cst10 (BC048364) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Cst10  
**Synonyms:** DD72  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG201025 representing BC048364  
**Red**=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAAGTTTGCTGAGCCCTCGATGCCTGTGTTGGCTGCTGTGGCCTTGACACTGACCCTGGCTGTGA  
TCCCTGAAGCCAGTACTAATGCTGAAGCCAAGCAGGTGGTATTAGGTGGAGTGGAGCCAGCTGACCCTAA  
GGATAAGGAGGTGCAGAAAGTGGTAAAGTTTGCTGTTAGAACCTACAATGATATGGACAATGACCTGTAT  
CTTAGCAAGCCAATACGACTGATGAGCGCCAGCCAGCAGGTTGTGGCTGGGAAGAAGTACTACTTAAAA  
TTGAGCTAGGCCGAACCACATGTACAAAAGTGTCTAATTTGGTTGATTGTCCCTTCAATGAACAGCC  
AGATCAGCAGAAGAGGGTCATCTGTAATTTCCAGATCAACGTTGCACCTGGCTGAACAAGATGTCCATG  
ACAAACTTCAACTGTTACAATTTTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG201025 representing BC048364  
**Red**=Cloning site **Green**=Tags(s)

MASLLSPSMPVLAVALTLTAVIPEASTNAEAKQVVLGGVEPADPKDKEVQKVVKFAVRTYNDMDNDLY  
LSKPIRLMSASQVAVAGKNYLLKIELGRITCTKTESNLVDCPFNEQPDQKRVICNFQINVPWLNKMSM  
TNFNCYNF

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

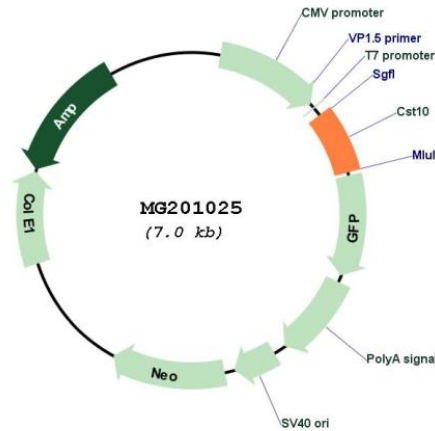


[View online »](#)

Cloning Scheme:



Plasmid Map:



ACCN: BC048364

ORF Size: 446 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>BC048364</u> , <u>AAH48364</u>
<b>RefSeq Size:</b>	740 bp
<b>RefSeq ORF:</b>	446 bp
<b>Locus ID:</b>	58214
<b>Cytogenetics:</b>	2 G3
<b>Gene Summary:</b>	May play a role in the last steps of the chondrocyte differentiation pathway as an inducer of maturation (PubMed:13679380). Induces chondrocyte calcification during endochondral ossification by playing a role in the transcriptional inhibition of ENPP1, a generator of pyrophosphate which inhibits calcification (PubMed:16680148). Possibly impairs the binding of a transcription factor to the ENPP1 promoter (PubMed:16680148). Unlike other cystatins, does not have thiol protease inhibitor activity (PubMed:16680148).[UniProtKB/Swiss-Prot Function]