

## Product datasheet for MR228480

### Chtop (NM\_001293779) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Chtop (NM\_001293779) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Chtop  
**Synonyms:** 2500003M10Rik; Fop; Srag  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR228480 representing NM\_001293779  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGCTGCACAGTCAGCGCCGAAAGTTGTGCTAAAAGCACCACCAAGATGTCTCTAAATGAGCGCTTTA  
 CTAATATGCTGAAGAACAACAGCCGATGCCAGTGAATATTCGGGCTTCGATGCAGCAGCAGCAGCAGCT  
 AGCCAGTCCAGAAACAGAAGACTGGCCAGCAGATGGAGAATAGACCCTCTGTCCAGGCAGCATTAAAA  
 CTTAAGCAGAGCTTAAAGCAGCGCTGGGTAAGAGTAATATCCAGGCACGGTTAGGCCGACCCATAGGTG  
 CCCTGGCCAGGGGAGCAATTGGAGGAAGAGGCCTACCCATAATCCAGAGAGGCTTCCCCGAGGAGGACT  
 ACGTGGGGGACGTGCTACCAGAACCTGCTTAGGGGTGGGATGTCGCTCCGAGGTCGGGGTATGATAGGT  
 CGGGGAAGAGGGGGCTTTGGAGGCAGAGGCCGAGGTCGTGGCCGAGGGAGAGGTGCCCTCACTCGCCCTG  
 TATTGACCAAGGAGCAGCTGGACAACCAATTGGATGCATACATGTCGAAAATAAAGGACACCTGGATGC  
 TGAATTGGATGCCTACATGGCACAGACAGATCCTGAAACCAATGAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR228480 representing NM\_001293779  
 Red=Cloning site Green=Tags(s)

MAAQSAPKVVVKSTTKMSLNERFTNMLKNKQMPVNIIRASMQQQQLASARNRRLAQQMNRPVSQAALK  
 LKQSLKQRLGKSNIQARLGRPIGALARGAIGRGLPIIQRGLPRGGLRGGTRTRLLRGGMSLRGRGMIG  
 RGRGGFGRGRGRGRGALTRPVLTKEQLDNQLDAYMSKTKGHLELDAYMAQTDPETND

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

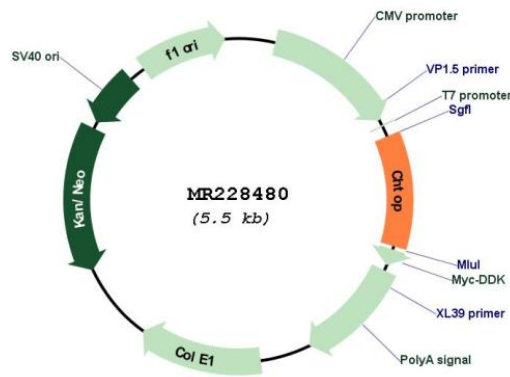
**Restriction Sites:** SgfI-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM\_001293779

ORF Size: 606 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\\_001293779.1](#), [NP\\_001280708.1](#)

**RefSeq Size:** 2297 bp

**RefSeq ORF:** 609 bp

**Locus ID:** 66511

**UniProt ID:** [Q9CY57](#)

**Cytogenetics:** 3 F1

**MW:** 22.4 kDa

**Gene Summary:** Plays an important role in the ligand-dependent activation of estrogen receptor target genes (By similarity). May play a role in the silencing of fetal globin genes (PubMed:20688955). Recruits the 5FMC complex to ZNF148, leading to desumoylation of ZNF148 and subsequent transactivation of ZNF148 target genes (PubMed:22872859). Required for the tumorigenicity of glioblastoma cells. Binds to 5-hydroxymethylcytosine (5hmC) and associates with the methylosome complex containing PRMT1, PRMT5, MEP50 and ERH. The CHTOP-methylosome complex associated with 5hmC methylates H4R3 and transactivates genes involved in glioblastomagenesis (PubMed:25284789).[UniProtKB/Swiss-Prot Function]