

Product datasheet for **MG201190**

Cbx7 (NM_144811) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cbx7 (NM_144811) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Cbx7
Synonyms: 1600014J01Rik; AI851678; D15Ert417e
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG201190 representing NM_144811
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGCTGTAGCCATAGGCGAGCAGGTGTTTGCAGGAGAGCATCCGGAAGAAGCGCGTGCGGAAGG
 GCAAAGTTGAATATCTGGTGAAGTGAAAGGATGGCCCCCAAGTATAGCACCTGGGAGCCAGAGGAGCA
 CATCTTGGACCTCGCCTTGTCTATGGCCTACGAGGAGAAGGAGGAGAGACCGAGCCTCGGGGTATAGG
 AAGAGAGGTCCGAAACCCAGGCGGCTTCTGCTACAGGAGTCAGCAGCCCCAGACGTTGTGCAGACCCCCG
 GAGACTGGGAGCCTATGGAGCAAGCCCCGAGGAGGAGGAGCAGAAGCAGACCTGACCAATGGGCCGCTCC
 CTGGACACCCACGCTCCCTCAAGTGAAGTTACCGTGACTGACATCACCGCAACTCCGTACCGTCACC
 TTCGCGAGGCTCAAGCCGCCGAGGGCTTCTTCCGAGACCGCAACGAGAAGCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

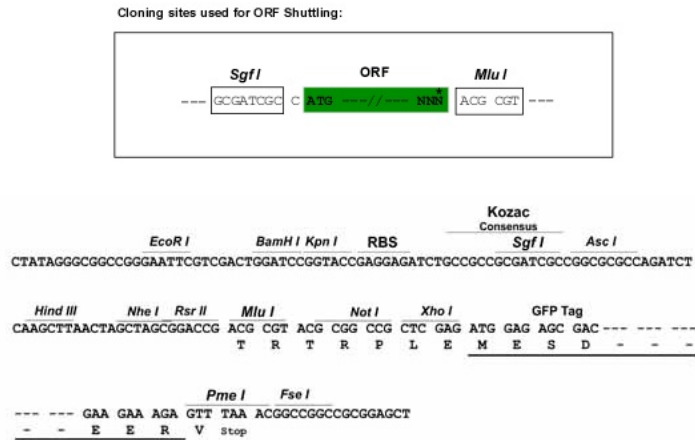
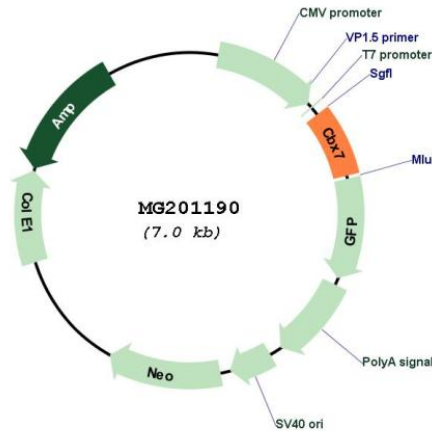
Protein Sequence: >MG201190 representing NM_144811
 Red=Cloning site Green=Tags(s)

MELSAIGEQVFAVESIRKKRVRKGVKVEYLKWKGWPPKYSTWEPEEHILDPRLVMAEYEEKEERDRASGYR
 KRGPKPRRLLQESAAPDVVQTPGDWEPMEQAPEEEAEADLTNGPPPWTPTLPSSEVTVDITANSVTVT
 FREAQAEEGFFRDRNEKL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



Cloning Scheme:

Plasmid Map:


ACCN: NM_144811

ORF Size: 474 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:	<ol style="list-style-type: none">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:	<u>NM_144811.3, NP_659060.1</u>
RefSeq Size:	2893 bp
RefSeq ORF:	477 bp
Locus ID:	52609
UniProt ID:	<u>Q8VDS3</u>
Cytogenetics:	15 37.85 cM
Gene Summary:	<p>Component of a Polycomb group (PcG) multiprotein PRC1-like complex, a complex class required to maintain the transcriptionally repressive state of many genes, including Hox genes, throughout development (PubMed:16537902, PubMed:22226355). PcG PRC1 complex acts via chromatin remodeling and modification of histones; it mediates monoubiquitination of histone H2A 'Lys-119', rendering chromatin heritably changed in its expressibility. Promotes histone H3 trimethylation at 'Lys-9' (H3K9me3) (By similarity). Binds to histone H3 trimethylated at 'Lys-9' (H3K9me3) or at 'Lys-27' (H3K27me3) (PubMed:16537902, PubMed:22226355). Trimethylation at 'Lys-27' (H3K27me3) is important for chromatin recruitment (PubMed:22226355, PubMed:16537902). May possibly also bind trimethylated lysine residues in other proteins (in vitro) (PubMed:16537902). Binds non-coding, single-stranded RNA and double-stranded RNA (PubMed:20541999, PubMed:16537902). Plays a role in the timely repression of differentiation-specific genes in pluripotent embryonic stem cells to maintain the undifferentiated state (PubMed:22226355). Regulator of cellular lifespan by maintaining the repression of CDKN2A, but not by inducing telomerase activity (PubMed:14647293).[UniProtKB/Swiss-Prot Function]</p>