OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR201190

Cbx7 (NM_144811) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cbx7 (NM_144811) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cbx7
Synonyms:	1600014J01Rik; AI851678; D15Ertd417e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR201190 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCTGTCAGCCATAGGCGAGCAGGTGTTTGCGGTGGAGAGCATCCGGAAGAAGCGCGTGCGGAAGG
GCAAAGTTGAATATCTGGTGAAGTGGAAAGGATGGCCCCCCAAGTATAGCACCTGGGAGCCAGAGGAGCA
CATCTTGGACCCTCGCCTTGTCATGGCCTACGAGGAGAAGGAGGAGAGAGACCGAGCCTCGGGGTATAGG
AAGAGAGGTCCGAAACCCAGGCGGCTTCTGCTACAGGAGTCAGCAGCCCCAGACGTTGTGCAGACCCCCG
GAGACTGGGAGCCTATGGAGCAAGCCCCCGAGGAGGAGGCAGAAGCAGACCTGACCAATGGGCCGCCTCC
CTGGACACCCACGCTCCCCTCAAGTGAAGTTACCGTGACTGACATCACCGCCAACTCCGTCACCGTCACC
TTCCGCGAGGCTCAAGCCGCCGAGGGCTTCTTCCGAGACCGCAACGAGAAGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR201190 protein sequence
Red=Cloning site Green=Tags(s)

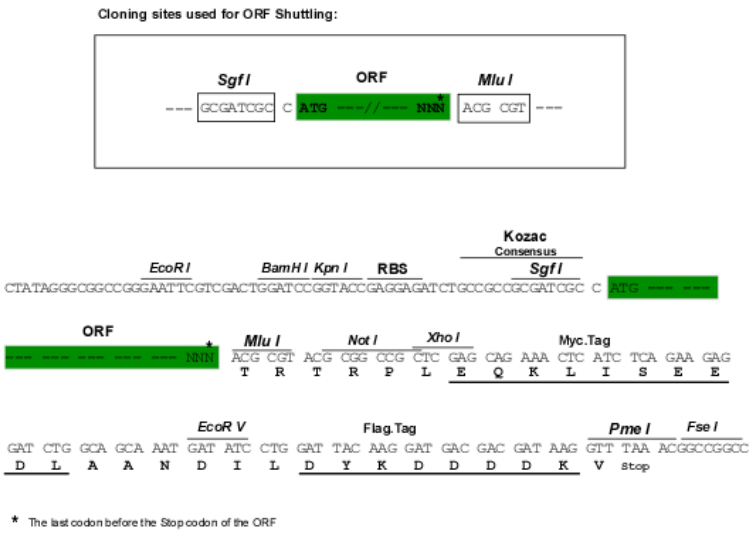
MELSAIGEQVFAVESIRKKRVRKGKVEYLVKWKGWPPKYSTWEPEEHILDPRLVMAYEEKEERDRASGYR
KRGPKPRRLLLQESAAPDVVQTPGDWEPMEQAPEEEAEADLTNGPPPWTPTLPSSEVTVTDITANSVTVT
FREAQAAEGFFRDRNEKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

View online »

Cloning Scheme:



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:
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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_144811.3, NP_659060.1

RefSeq Size: 2893 bp

RefSeq ORF: 477 bp

Locus ID: 52609

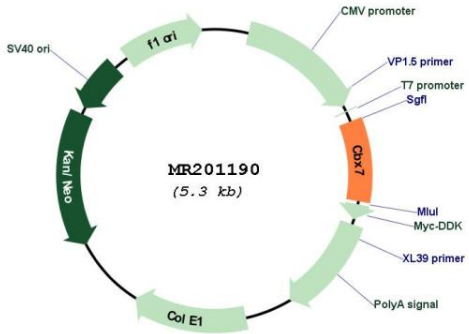
UniProt ID: Q8VDS3

Cytogenetics: 15 37.85 cM

MW: 18.1 kDa

Gene Summary: 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]

Product images:



Circular map for MR201190