

Product datasheet for **MG222325**

Creb3l2 (NM_178661) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Creb3l2 (NM_178661) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Creb3l2
Synonyms:	BBF2H7; C530025K05Rik; SCIRR69
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG222325 representing NM_178661
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGGTGCTGGAGAGCGGGAGCAGAGCGTCTGCAGTGGGACCGCAAGCTGAGCGAGCTGTGAGAGC
 CCGGAGAGACTGAGGCCCTCATGTACCACAGCACTTCTCGGAGCTCCTAGACGAGTTTTCCAGAACGT
 CCTGGGTGAGTCTGAGTGACCTTTCTCTCAGAGAAGAGCGAGTCAATGGAGGTGGAGCCATCTCCA
 ACATCACCAGCGCCTCTCATCCAGGCTGAACACAGCTACTCTGAGCGAGGAGCCCCGGACTCAGTCAC
 CATTACCATGCGGCTACCAGCGACAGCTTCAATGACGAGGAGGTGGAGAGTAAAAATGGTACCTGTC
 TACAGAGTTTCTTACGCTACCATCAAGACAGAGCCAATCACAGAGGAGCAGCCCCGGGACTTGTCCCT
 TCTGCTACTCTGACCATCACAGCATTCCACTCCTTTTAAAAAGAAGAGTCCCCTCTGGATATGAATG
 CTGGGGGGGACTCCTCGTCCAGACGCTTATTCTAAGATTAAGCTGGAGCCGCACGAAGTGGATCAGTT
 CTTAAACTTCTCCCCGAAAGAAGCTCCGTGGATCAACTGCATTACCACCAACACCACCCAGTAGTCAC
 AGCAGTACTCTGAGGGCAGCTTGGAGCCCAACCCACGCCTGCATCCCTTACGCCTGTCTCAGGCCACA
 GCCCTGCCAGAGCCATGCCCGGGGCCCTCTGCCTTGTCCACATCTCCTCTCCTCACAGCTCCACATAA
 GCTGCAGGGATCGGGCCCCCTGGTCTGACAGAAGAGGAGAAGAGGACCTGGTTGCCGAGGGCTATCCC
 ATTCCCAAGCTGCCTCTGACAAAACTGAGGAGAAGGCCCTGAAGAAAAATCCGGAGAAAAAGTCAAGA
 ATAAGATTTCTGCCAAGAAAGCAGGAGAAAGAAGAAAGAATACATGGACAGCCTGGAGAAAAAGTGA
 GTCTTGTCAACTGAGAACTTGGAGCTTCGGAAGAAGTGGAGGTGCTGGAGAACACCAATAGGACTCTC
 CTTAGCAACTTCAGAAGCTTACAGCTTGGTGTGGGGAAGGTCTCTCGAACCTGCAAGTTAGCTGGCA
 CACAGATGGCACCTGCCTCATGGTCTGTGCTTTGCTTTGCTTTGCTTTGCAATTTGGAAGCTCTTTCAAG
 CTATGGGCCTTATCCTTCTGCCACCAAGATGGCTCTGCCAGCCAGCATCCTCTGTCAGAGCCATACACA
 GCCTCCGTGGTGGATCCAGGAACCTGCTAATCTATGAGGAACACGCTCCCCTGGAAGAGTCGTCGAGCC
 CAGCCTCAGCCGGGGAGCTGGGGGGCTGGGACAGAGGCTCCTCTGCTCAGGGCATCGTCGGGGCTTGA
 GGCCCTGCCAGAGGTGGATCTTCCCAATTTCTTATCTCCAATGAGACGAGCTTGGAGAAGTCAGTACTG
 TTGGAGCTTCAGCAGCACCTGGTCAGCAGCAAAGTGAAGGGAACGAAACACTCAAGTTGTAGAGCTGG
 AGAGGAGAGTGAACGCCACCTTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

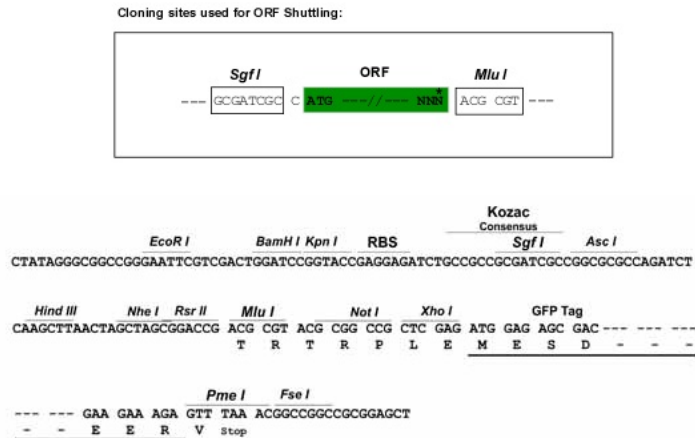
>MG222325 representing NM_178661
 Red=Cloning site Green=Tags(s)

MEVLESGEQSVLQWRKLSLSEPGETEALMYHTHSELLDEFNQNLVGLLSDPFLSEKSESMEVEPSP
 TSPAPLIQAEHSYSLSEEPRTQSPFTHAATSDSFNDEEVESEKWLSTEFPSATIKTEPITEEQPPGLVP
 SVTLTITAIISTPFEKEESPLDMNAGDSSCQTLIPKIKLEPHEVDQFLNFSPEASVDQLHLPPTPPSSH
 SSDSEGLSPNPRLHPFSLSQAHSPARAMPRGPSALSTSPLLTAPHKLQGSGLVLTTEEKRTLVAEGYP
 IPTKLPLTKSEKALKKIRRKIKNKISAQESRRKKKEYMDSLEKKVESSTENLELRKKVEVLENTNRTL
 LQQLQKLQTLVMGKVSRTCKLAGTGTCLMVVVLCFAVAFGSFFQGYGPYPYATKMLPSQHPLSEPYT
 ASVVRSRNLLIYEEHAPLEESSPASAGELGGWDRGSSLLRASSGLEALPEVDLPHFLISNETSLEKSVL
 LELQHLVSSKLEGNELTKVVELERRVNATF

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_178661

ORF Size: 1563 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_178661.4](#), [NP_848776.2](#)

RefSeq Size: 3318 bp

RefSeq ORF: 1566 bp

Locus ID: 208647

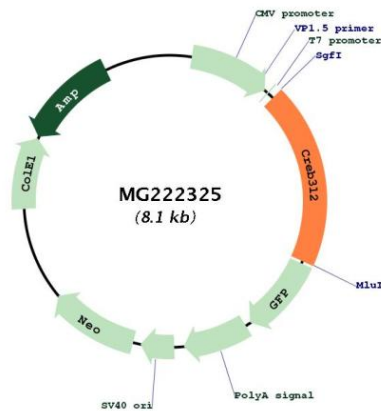
UniProt ID: [Q8BH52](#)

Cytogenetics: 6 B1

Gene Summary:

Transcription factor involved in unfolded protein response (UPR). In the absence of endoplasmic reticulum (ER) stress, inserted into ER membranes, with N-terminal DNA-binding and transcription activation domains oriented toward the cytosolic face of the membrane. In response to ER stress, transported to the Golgi, where it is cleaved in a site-specific manner by resident proteases S1P/MBTPS1 and S2P/MBTPS2. The released N-terminal cytosolic domain is translocated to the nucleus to effect transcription of specific target genes. Plays a critical role in chondrogenesis by activating the transcription of SEC23A, which promotes the transport and secretion of cartilage matrix proteins, and possibly that of ER biogenesis-related genes (PubMed:19767744). In a neuroblastoma cell line, protects cells from ER stress-induced death (PubMed:17178827). In vitro activates transcription of target genes via direct binding to the CRE site (PubMed:17178827).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG222325