

Product datasheet for **MG203542**

Xbp1 (NM_013842) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Xbp1 (NM_013842) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Xbp1 |
| Synonyms: | D11Ert39e; TREB-5; TREB5; XBP-1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >MG203542 representing NM_013842 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGGTGGTGGCAGCGCGCCGAGCGCGCCACGGCGGCCCAAGTGCTACTCTTATCTGGCCAGC
CCGCCTCCGGCGGCCGGCGCTGCCGCTCATGGTACCCGGTCCGCGGCAGCAGGGTCGGAGGCGAGCGG
GACACCGCAGGCTCGAAGCGGCAGCGGCTCACGCACCTGAGCCCGAGGAGAAAGCGCTGCGGAGGAAA
CTGAAAAACAGAGTAGCAGCGCAGACTGCTCGAGATAGAAAGAAAGCCCGGATGACGGAGCTGGAGCAGC
AAGTGGTGGATTTGGAAGAAGAGAACCACAACTCCAGCTAGAAAATCAGCTTTTACGGGAGAAAACCTCA
CGGCCTTGTGGTTGAGAACCAGGAGTTAAGAACACGCTTGGGAATGGACACGCTGGATCCTGACGAGGTT
CCAGAGGTGGAGGCCAAGGGGAGTGGAGTAAGGCTGGTGGCCGGGTCTGCTGAGTCCGCAGCACTCAGAC
TATGTGCACCTCTGCAGCAGGTGCAGGCCAGTTGTACCTCCCCAGAACATCTTCCCATGGACTCTGAC
ACTGTTGCCTCTTCAGATTCTGAGTCTGATATCCTTTGGGCAATTCTGGACAAGTTGGACCCTGTATGT
TTTTCAAATGTCCTTCCCAGAGTCTGCTAGTCTGGAGGAACCTCCAGAGGCTACCCAGAAGGACCTAG
TTCCTTACCAGCCTCCCTTCTCTGTGAGTGGGACCTCATCAGCCAAGCTGGAAGCCATTAATGAATC
ATTCGTTTTGACCATGTATACCAAGCCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG203542 representing NM_013842
 Red=Cloning site Green=Tags(s)

MVVVAAAPSAATAAPKVL LLSGQPASGGRALPLMVPGPRAAGSEASGTPQARKRQRLTHLSPEEKALRRK
 LKNRVAAQTARDRKKARMSLELQQVVDLEENHKLQLENQLLREKTHGLVVENQELRTRLGMDTLDPDEV
 PEVEAKGSGVRLVAGSAESAALRLCAPLQQVQAQLSPPQNIFFWTLTLLPLQILSLISFWAFWTSWTLSC
 FSNVLPQSLLVWRNSQRSTQKDLVPYQPPFLCQWGP HQPSWKPLMNSFVL TMYTPSL

TRTRPLE - GFP Tag - V

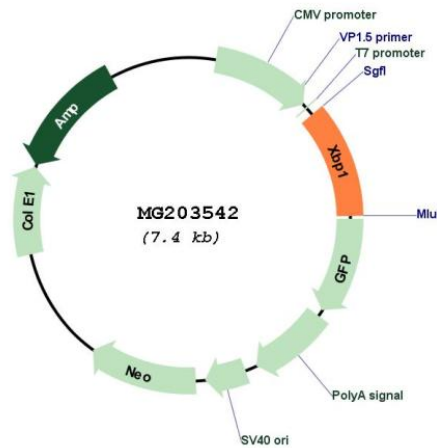
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_013842

ORF Size: 801 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_013842.3](#)

RefSeq Size: 1817 bp

RefSeq ORF: 804 bp

Locus ID: 22433

UniProt ID: [O35426](#)

Cytogenetics: 11 3.61 cM

Gene Summary:

Functions as a transcription factor during endoplasmic reticulum stress by regulating the unfolded protein response (UPR). Required for cardiac myogenesis and hepatogenesis during embryonic development and the development of secretory tissues such as exocrine pancreas and salivary gland (PubMed:10425189, PubMed:10652269, PubMed:16362047, PubMed:17612490). Involved in differentiation of B lymphocytes to plasma cells and production of immunoglobulins. Modulates the cellular response to ER stress in a PIK3R-dependent manner. Binds to the cis-acting X box present in the promoter regions of major histocompatibility complex class II genes (By similarity). Involved in VEGF-induced endothelial cell (EC) proliferation and retinal blood vessel formation during embryonic development but also for angiogenesis in adult tissues under ischemic conditions (PubMed:23529610). Functions also as a major regulator of the UPR in obesity-induced insulin resistance and type 2 diabetes for the management of obesity and diabetes prevention (PubMed:15486293). [UniProtKB/Swiss-Prot Function]