

Product datasheet for **MG205421**

Xbp1 (BC016079) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Xbp1 (BC016079) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Xbp1
Synonyms:	XBP-1, TREB5, TREB-5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG205421 representing BC016079 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGGTGGTGGCAGCGCGCCGAGCGCGCCACGGCGGCCCAAGTCTACTCTTATCTGGCCAGC
CCGCTCCGGCGCGCGGCGCTGCCGCTCATGGTACCCGGTCCGCGGGCAGCAGGGTCGGAGGCGAGCGG
GACACCGCAGGCTCGAAGCGGCAGCGGCTCACGCACCTGAGCCCGAGGAGAAAGCGCTGCGGAGGAAA
CTGAAAAACAGAGTAGCAGCGCAGACTGCTCGAGATAGAAAGAAAGCCCGGATGAGCGAGCTGGAGCAGC
AAGTGGTGGATTTGGAAGAAGAGAACCACAACTCCAGCTAGAAAATCAGCTTTTACGGGAGAAAACCTCA
CGGCTTGTGGTTGAGAACCAGGAGTTAAGAACACGCTTGGGAATGGACACGCTGGATCCTGACGAGGTT
CCAGAGGTGGAGGCCAAGCAGGTGCAGGCCAGTTGTACCTCCCAGAACATCTTCCCATGGACTCTGA
CACTCGCCTCTTCAGATTCTGAGTCTGATATCCTTTTGGGCATTCTGGACAAGTTGGACCCTGTCATGTT
TTTCAATGTCCTTCCCCAGAGTCTGCTAGTCTGGAGGAACCTCCAGAGGTCTACCCAGAAGGACCTAGT
TCCTTACCAGCCTCCCTTCTCTGTGAGTGGGACCTCATCAGCCAAGCTGGAAGCCATTAATGAACTCA
TTCGTTTTGACCATGTATACACCAAGCCTCTAGTTTTAGAGATCCCCTCTGAGACAGAGAGTCAAACCTAA
CGTGGTAGTAAAATTGAGGAAGCACCTTAAGCTCTTCAAGAGGATCACCTGAATTCATTGTCTCA
GTGAAGAAAGAGCCTTTGGAAGATGACTTCATCCAGAGCTGGGCATCTCAAACCTGCTTTCATCCAGCC
ATTGTCTGAGACCACCTTCTTGCCTGCTGGACGCTCACAGTACTGTTGGATATGAGGGCTCCCCTTCTCC
CTTCAGTGACATGCTTCTCCACTTGGTACAGACCACTCCTGGGAGGATACTTTTGCCAATGAACTTTTC
CCCCAGCTGATTAGTGTC

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG205421 representing BC016079
 Red=Cloning site Green=Tags(s)

MVVVAAAPSAATAAPKVLLL SGQPASGGRALPLMVPGPRAAGSEASGTPQARKRQRLTHLSPEEKALRRK
 LKNRVAAQTARDRKKARMSLEQQVVDLEEENHKLQLENQLLREKTHGLVVENQELRTRLGMDTLDPDEV
 PEVEAKQVQAQLSPPQNI FPWTLTLASSDSESDILLGILDKLDPVMFFKCPSPESASLEELPEVYPEGPS
 SLPASLSL SVGTSSAKLEAINELIRFDHVVYTKPLVLEIPSETESQTNVVKIEEAPLSSEEDHPEFIVS
 VKKEPLEDDFIPELGISNLLSSSHCLRPPSCLLDAHSDCGYEGSPSPFSDMSSPLGTDHSDWEDTFANELF
 PQLISV

TRTRPLE - GFP Tag - V

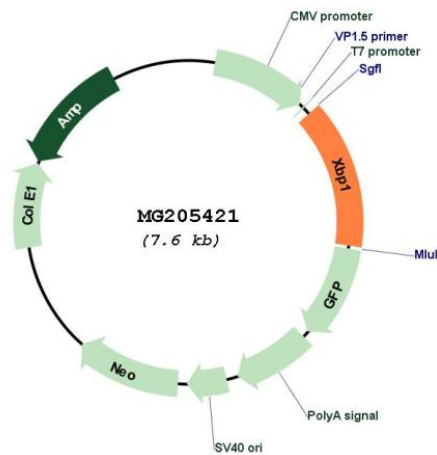
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

BC016079

ORF Size:	1068 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:	BC016079.1
RefSeq Size:	2054 bp
RefSeq ORF:	1070 bp
Locus ID:	22433
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]