

## Product datasheet for MR205421

### Xbp1 (BC016079) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Xbp1 (BC016079) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Xbp1
Synonyms:	XBP-1, TREB5, TREB-5
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR205421 representing BC016079 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTGGTGGTGGCAGCGCGCCGAGCGCGCCACGGCGGCCCAAGTGTACTCTTATCTGGCCAGC  
CCGCTCCGGCGCGCGGCGCTGCCGCTCATGGTACCCGGTCCGCGGGCAGCAGGGTCGGAGCGAGCGG  
GACACCGCAGGCTCGCAAGCGGCAGCGGCTCACGCACCTGAGCCCGAGGAGAAAAGCGCTCGGAGGAAA  
CTGAAAAACAGAGTAGCAGCGCAGACTGCTCGAGATAGAAAGAAAAGCCCGATGAGCGAGCTGGAGCAGC  
AAGTGGTGGATTTGGAAGAAGAGAACCACAACTCCAGCTAGAAAATCAGCTTTACGGGAGAAAATCA  
CGGCCCTTGTTGTTGAGAACCAGGAGTTAAGAACACGCTTGGGAATGGACACGCTGGATCCTGACGAGTT  
CCAGAGGTGGAGGCCAAGCAGGTGCAGGCCAGTTGTACCTCCCAGAACATCTTCCATGGACTCTGA  
CACTCGCTCTTCAGATTCTGAGTCTGATATCCTTTGGGCATTCTGGACAAGTTGGACCCTGTCATGTT  
TTCAAATGTCTTCCCAGAGTCTGCTAGTCTGGAGAACTCCCAGAGGTCTACCCAGAAGGACCTAGT  
TCCTTACCAGCCTCCCTTTCTGTGTCAGTGGGACCTCATCAGCCAAGCTGGAAGCCATTAATGAACCTCA  
TTCGTTTTGACCATGTATACACCAAGCCTCTAGTTTTAGAGATCCCCTCTGAGACAGAGTCAAACCTAA  
CGTGGTAGTGAAAATTGAGGAAGCACCTCTAAGCTCTTCAAGAAGAGGATCACCTGAATTCATTGTCTCA  
GTGAAGAAAGAGCCTTTGGAAGATGACTTCATCCAGAGCTGGGCATCTCAAACCTGCTTTCATCCAGCC  
ATTGTCTGAGACCACCTTCTGCCTGCTGGACGCTCACAGTACTGTGGATATGAGGGCTCCCTTCTCC  
CTTCAGTGACATGCTTCTCCACTTGGTACAGACCCTCTGGGAGGATACTTTTGCCAATGAACTTTTCC  
CCAGCTGATTAGTGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205421 representing BC016079  
Red=Cloning site Green=Tags(s)

MVVVAAAPSAATAAPKVLLL SGQPASGGRALPLMVPGPRAAGSEASGTPQARKRQRLTHLSPEEKALRRK  
 LKNRVAAQTARDRKKARMSLEQQVVDLEENHKLQLENQLLREKTHGLVVENQELRTRLGMDTLDPDEV  
 PEVEAKQVQAQLSPPQNI FPWTLTLASSDSESDILLGILDKLDPVMFFKCPSPESASLEELPEVYPEGPS  
 SLPASLSLVSGTSSAKLEAINELIRFDHVYTKPLVLEIPSETESQTNVVVKIEEAPLSSEEDHPEFIVS  
 VKKEPLEDDFIPELGISNLLSSSHCLRPPSCLLDAHSDCGYEGSPSPFSDMSSPLGTDHWSWEDTFANELF  
 PQLISV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

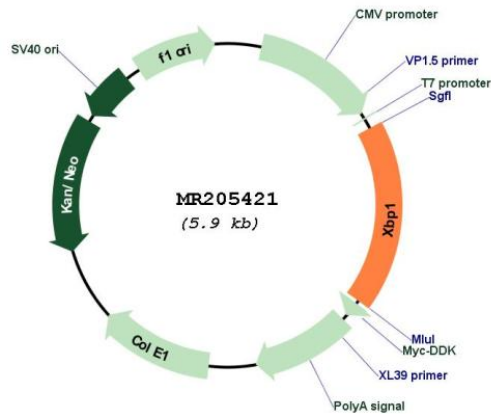
**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:**

BC016079

<b>ORF Size:</b>	1068 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC016079.1</a>
<b>RefSeq Size:</b>	2054 bp
<b>RefSeq ORF:</b>	1070 bp
<b>Locus ID:</b>	22433
<b>Cytogenetics:</b>	11 3.61 cM
<b>MW:</b>	75.2 kDa
<b>Gene Summary:</b>	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]