

Product datasheet for **SC315541**

XBP1 (NM_001079539) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	XBP1 (NM_001079539) Human Untagged Clone
Tag:	Tag Free
Symbol:	XBP1
Synonyms:	TREB-5; TREB5; XBP-1; XBP2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF:

>OriGene sequence for NM_001079539 edited
 GCGGCGCGCGGTGCGCGGTGCGTAGTCTGGAGCTATGGTGGTGGTGGCAGCCGCGCCGAA
 CCCGGCCGACGGGACCCCTAAAGTTCTGCTTCTGTGCGGGCAGCCCGCTCCGCCGCGG
 AGCCCCGGCCGGCCAGGCCCTGCCGCTCATGGTGCCAGCCAGAGAGGGGCCAGCCCGGA
 GGCAGCGAGCGGGGGGCTGCCAGGCGCGCAAGCGACAGCGCCTCACGCACCTGAGCCC
 CGAGGAGAAGGCGCTGAGGAGGAACTGAAAAACAGAGTAGCAGCTCAGACTGCCAGAGA
 TCGAAAGAAGGCTCGAATGAGTGAGCTGGAACAGCAAGTGGTAGATTTAGAAGAAGAGAA
 CAAAAACTTTTCTAGAAAATCAGCTTTTACGAGAGAAAACTCATGGCCTTGTAGTTGA
 GAACCAGGAGTTAAGACAGCGCTTGGGGATGGATGCCCTGGTTGCTGAAGAGGAGCGGA
 AGCCAAGGGGAATGAAGTGAGGCCAGTGCCCGGGTCTGCTGAGTCCGAGCAGGTGCAGG
 CCCAGTTGTCACCCCTCCAGAACATCTCCCATGGATTCTGGCGTATTGACTCTTCAGA
 TTCAGAGTCTGATATCCTGTTGGGCATTCTGGACAACCTGGACCCAGTCATGTTCTTCAA
 ATGCCCTTCCCCAGAGCCTGCCAGCCTGGAGGAGCTCCCAGAGGTCTACCCAGAAGGACC
 CAGTTCCTTACCAGCCTCCCTTCTCTGTCAGTGGGACGTCATCAGCCAAGCTGGAAGC
 CATTAATGAACTAATTCGTTTTGACCACATATATACCAAGCCCTAGTCTTAGAGATACC
 CTCTGAGACAGAGAGCCAAGCTAATGTGGTAGTAAAATCGAGGAAGCACCTCTCAGCCC
 CTCAGAGAATGATCACCCCTGAATTCATTGTCTCAGTGAAGGAAGAACCTGTAGAAGATGA
 CCTCGTCCGGAGCTGGGTATCTCAAACTGCTTTTCATCCAGCCACTGCCCAAAGCCATC
 TTCCTGCCTACTGGATGCTTACAGTGACTGTGGATACGGGGGTTCCCTTCCCCATTGAG
 TGACATGTCTCTGCTGGTGTAAACCATCTTGGGAGGACACTTTTGCCAATGAACT
 CTTTCCCCAGCTGATTAGTGTCTAAGGAATGATCCAATACTGTTGCCCTTTCTTGACT
 ATTACACTGCCTGGAGGATAGCAGAGAAGCCTGTCTGTACTTCATTCAAAAAGCCAAAAT
 AGAGACTACAGTCCCTAGAGAATTCCTCTATTTGTTCCAGATCTCATAGATGACCCCCAG
 GTATTGCTTTTTGACATCCAGCAGTCCAAGGTATTGAGACATATTACTGGAAGTAAGAAA
 TATTACTATAATTGAGAACTACAGCTTTTAAGATTGACTTTTATCTTAAAAGGGTGGTA
 GTTTTCCCTAAAATACTTATTATGTAAGGGTCATTAGACAAAATGCTTGAAGTAGACATG
 GAATTTATGAATGGTCTTTATCATTCTCTTCCCTTTTTGGCATCCTGGCTTGCCCTC
 CAGTTTTAGGTCCTTAGTTGCTTCTGTAAGCAACGGGAACACCTGCTGAGGGGCTCT
 TTCCCTCATGTATACTTCAAGTAAGATCAAGAATCTTTTGTGAAATTATAGAAATTTACT
 ATGAAATGCTTGATGGAATTTTTCTGCTAGTGTAGCTTCTGAAAGGTGCTTTCTCCA
 TTTATTTAAAACCTACCCATGCAATTAAGGTACAATGCAAAAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001079539 unedited
 GTTCAGGTCACAATTTGTATACGACTCACTATAGGCGGCCGCAATTCGCACGAGGGCGG
 CGCGCGGTGCGCGGTGCGTAGTCTGGAGCTATGGTGGTGGTGGCAGCCGCGCCGAACCCG
 GCCGACGGGACCCCTAAAGTTCTGCTTCTGTGCGGGCAGCCCGCTCCGCCGCGGAGCC
 CGGCGCGCCAGGCCCTGCCGCTCATGGTGCCAGCCAGAGAGGGGCCAGCCCGGAGGCA
 GCGAGCGGGGGGCTGCCAGGCGCGCAAGCGACAGCGCCTCACGCACCTGAGCCCGAG
 GAGAAGGCGCTGAGGAGGAACTGAAAAACAGAGTAGCAGCTCAGACTGCCAGAGATCGA
 AAGAAGGCTCGAATGAGTGAGCTGGAACAGCAAGTGGTAGATTTAGAAGAAGAGAACCAA
 AAATTTTGTAGAAAATCAGCTTTTACGAGAGAAAACCTCATGGCCTTGTAGTTGAGAAC
 CAGGAGTTAAGACAGCGCTTGGGGATGGATGCCCTGGTTGCTGAAGAGGAGGCGGAAGCC
 AAGGGGAATGAAGTGAGGCCAGTGCCCGGGTCTGCTGAGTCCGCAGCAGGTGCAGGCCCA
 GTTGTACCCCTCCAGAACATCTCCCATGGATTCTGGGCGTATTGACTCTTCAGATTCA
 GAGTCTGATATCCTGTTGGCATTCTGGACAACCTGNACCCAGTCATGTTCTTCAAATGCC
 CTTCCCCAAAGCCTGCCAGCCTGGNAGAGCTCCCAGAGGTCTACCCAGAAGGACCCAGTT
 CCTTACCAGCCTCCCTTCTCTGTCAGTGGGACGTCATCAGCCAAGCTGGGAGCCATT
 ATGAAACTAATCGTTTTGACCACTATATACCAAGCCCTATCTTAGAGATACCCCTGGA
 ACAGAGGCCAAGCTATGTGGTC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001079539 unedited
 CCATCGGNGATGGCAACTTCCAGGNCCAGGNAAGCACTGGGNGAGGTCACAGGGATGC
 CACCCGGGATCTGTTCAGGAAACAGCTATGACCGCGGCCCAATCTAGAGTCGAGTTTTT
 TTTTTTTTTTTTTGCATTGTACCTTTTAATTGCATGGGTAGTTTTAAATAAATGGAGAAA
 GCACCTTTCAGAACTACACTAGCAGGAAAAAATCCATCAAGCATTTACATAGTAAATT
 TCTATAATTTACAAAAAGATTCTTGATCTTACTTGAAGTATACATGAGGGAAAGAGCCCC
 CTCAGCAGGTGTTCCCGTTGCTTACAGAAGCAAATAAAGGACCTAAAACTGGAGGCAAG
 CCAGGATGCCAAAAAGGGGAAGAGAAAATGATAAAGAACCATTCAAAATTCATGTCTA
 CTTCAAGACATTTGTCTAATGACCCTTACATAATAAGTATTTTAGGGAAAATAACACCC
 TTTTAAGATAAAAGTACAATCTTAAAAGCTGTAGTTCTCAATTATAGTAATATTTCTTAC
 TTCCAGTAATATGTCTCAATACCTTGGACTGCTGGATGTCAAAGACAATACCTGGGGGT
 CATCTATGAGATCTGAACAAATAGAGGAATTCTCTAGGACTGTACTCTCTATTTTGGC
 TTTTTGAATGAAGTACAGACAGGCTTCTCTGCTATCCTCCAGGCAGTGAATAGTCAAGG
 AAAAGGGCAACAGTATTGGATCATTCTTAGACACTAATCAGCTGGGAAAGAGTTCATT
 GGCAAAAGTGTCTCCCAAAATGGTTTACACCAAGCAGAGAGGACATGTCACTGAATGGG
 GGAAAGGGAAACCCCGTATCCACAGTCACTGTAAGCATCCAGTAGGCAGGAAGATGGCTT
 TTGGGCANTGGCTGGATGAAAGCANATTTGAGATACCAGCT

Restriction Sites:

Please inquire

ACCN:

NM_001079539

Insert Size:

1800 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:

The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.

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_001079539.1](#), [NP_001073007.1](#)

RefSeq Size: 1810 bp

RefSeq ORF: 1131 bp

Locus ID: 7494

UniProt ID: [P17861](#)

Cytogenetics: 22q12

Protein Families: Transcription Factors

Gene Summary: This gene encodes a transcription factor that regulates MHC class II genes by binding to a promoter element referred to as an X box. This gene product is a bZIP protein, which was also identified as a cellular transcription factor that binds to an enhancer in the promoter of the T cell leukemia virus type 1 promoter. It may increase expression of viral proteins by acting as the DNA binding partner of a viral transactivator. It has been found that upon accumulation of unfolded proteins in the endoplasmic reticulum (ER), the mRNA of this gene is processed to an active form by an unconventional splicing mechanism that is mediated by the endonuclease inositol-requiring enzyme 1 (IRE1). The resulting loss of 26 nt from the spliced mRNA causes a frame-shift and an isoform XBP1(S), which is the functionally active transcription factor. The isoform encoded by the unspliced mRNA, XBP1(U), is constitutively expressed, and thought to function as a negative feedback regulator of XBP1(S), which shuts off transcription of target genes during the recovery phase of ER stress. A pseudogene of XBP1 has been identified and localized to chromosome 5. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (2) lacks a 26 nt segment in the CDS compared to variant 1, that causes a frameshift. The resulting isoform, XBP1(S), has the same N-terminus, but a longer and distinct C-terminus compared to isoform XBP1(U). Isoform XBP1(S) functions as a transcription factor.