

## Recombinant Human XBP1, T7 -tagged

Cat. No. XBP1-30866TH Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant full length protein (Human) fused to T7 tag at N-terminal end.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	<p>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.</p>
<b>Conjugation</b>	T7
<b>Form</b>	Liquid

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<b>Purity</b>	>95% by SDS-PAGE
<b>Storage buffer</b>	Preservative: 0.002% Sodium Azide Constituents: 10mM Tris, Triton X-100, pH 8.0
<b>Storage</b>	Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles.
<b>Sequence Similarities</b>	Belongs to the bZIP family. Contains 1 bZIP domain.
<b>Full Length</b>	Full L.

## GENE INFORMATION

<b>Gene Name</b>	XBP1 X-box binding protein 1 [ Homo sapiens ]
<b>Official Symbol</b>	XBP1
<b>Synonyms</b>	XBP1; X-box binding protein 1; XBP2; X-box-binding protein 1;
<b>Gene ID</b>	7494
<b>mRNA Refseq</b>	NM_005080
<b>Protein Refseq</b>	NP_005071
<b>MIM</b>	194355
<b>Uniprot ID</b>	P17861
<b>Chromosome Location</b>	22q12.1

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**Pathway**

Activation of Chaperones by ATF6-alpha, organism-specific biosystem; Activation of Chaperones by IRE1alpha, organism-specific biosystem; Diabetes pathways, organism-specific biosystem; FOXA1 transcription factor network, organism-specific biosystem; HTLV-I infection, organism-specific biosystem;

**Function**

DNA binding; protein dimerization activity; sequence-specific DNA binding; sequence-specific DNA binding transcription factor activity;

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