

Recombinant Human XBP1, T7 -tagged

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

SPECIFICATION

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

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

GENE INFORMATION

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