

Resource Summary Report

Generated by [kravitz2](#) on Jul 31, 2026

XBP-1 2: pFLAG.XBP1p.CMV2

RRID:Addgene_21833

Type: Plasmid

Proper Citation

RRID:Addgene_21833

Plasmid Information

URL: <http://www.addgene.org/21833>

Proper Citation: RRID:Addgene_21833

Insert Name: XBP-1 processed/spliced

Organism: Mus musculus

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:11780124](#)

Vector Backbone Description: Backbone Marker:Sigma; Backbone Size:4700; Vector Backbone:pFLAG-CMV2; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: Addgene sequencing results show two mismatches with author's sequence causing two amino acid mutations - G26V and A76V. FLAG-epitope tagged IRE1-spliced XBP-1 in the mammalian expression plasmid pFLAG-CMV-2. Flag-tagged version of XBP-1 was constructed by inserting the Flag epitope tag sequence immediately 3' of the ATG start codon. Note: Cheah Kathryn Song Eng reported on November 4, 2004 that the sequence of this plasmid deviates from the predicted by G1028T. This impacts on the CDS changing Gly27Val. We do not know if this is a mutation that crept into our construction, a mutation that was present in the cDNA we purchased or if it is a point in which the mouse genome has some variability. Nor do we know the functional significance of this, but we note that the corresponding residue in the human is Ala. Furthermore, this variation/mutation is in a region of relatively poor sequence conservation across species, suggesting that it might not be all that important.

Plasmid Name: XBP-1 2: pFLAG.XBP1p.CMV2

Record Creation Time: 20220422T222057+0000

Record Last Update: 20260725T074428+0000

Ratings and Alerts

No rating or validation information has been found for XBP-1 2: pFLAG.XBP1p.CMV2.

No alerts have been found for XBP-1 2: pFLAG.XBP1p.CMV2.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 14 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Wang J, et al. (2023) The activation of spliced X-box binding protein 1 by isorhynchophylline therapy improves diabetic encephalopathy. *Cell biology and toxicology*, 39(6), 2587.

Hwang SM, et al. (2023) Transgelin 2 guards T cell lipid metabolic programming and anti-tumor function. *Research square*.

Serrano RL, et al. (2019) A vascular smooth muscle cell X-box binding protein 1 and transglutaminase 2 regulatory circuit limits neointimal hyperplasia. *PloS one*, 14(4), e0212235.

Wheeler MA, et al. (2019) Environmental Control of Astrocyte Pathogenic Activities in CNS Inflammation. *Cell*, 176(3), 581.

Sundaram A, et al. (2017) The Sec61 translocon limits IRE1?? signaling during the unfolded protein response. *eLife*, 6.

Jegal KH, et al. (2017) Activating transcription factor 6-dependent sestrin 2 induction ameliorates ER stress-mediated liver injury. *Biochimica et biophysica acta. Molecular cell research*, 1864(7), 1295.

Tufanli O, et al. (2017) Targeting IRE1 with small molecules counteracts progression of atherosclerosis. *Proceedings of the National Academy of Sciences of the United States of America*, 114(8), E1395.

Takarada T, et al. (2016) Protective upregulation of activating transcription factor-3 against glutamate neurotoxicity in neuronal cells under ischemia. *Journal of neuroscience research*, 94(5), 378.

Takarada T, et al. (2016) Upregulation of Slc38a1 Gene Along with Promotion of Neurosphere Growth and Subsequent Neuronal Specification in Undifferentiated Neural Progenitor Cells Exposed to Theanine. *Neurochemical research*, 41(1-2), 5.

El Karoui K, et al. (2016) Endoplasmic reticulum stress drives proteinuria-induced kidney lesions via Lipocalin 2. *Nature communications*, 7, 10330.

Sheng X, et al. (2015) Divergent androgen regulation of unfolded protein response pathways drives prostate cancer. *EMBO molecular medicine*, 7(6), 788.

Hong SY, et al. (2013) Multiple myeloma Leu167Ile (c.499C>A) mutation prevents XBP1 mRNA splicing. *British journal of haematology*, 161(6), 898.

Valentine CD, et al. (2013) X-box binding protein 1 (XBP1s) is a critical determinant of *Pseudomonas aeruginosa* homoserine lactone-mediated apoptosis. *PLoS pathogens*, 9(8), e1003576.

Zhang Y, et al. (2012) Transcriptional regulation of the Ufm1 conjugation system in response to disturbance of the endoplasmic reticulum homeostasis and inhibition of vesicle trafficking. *PloS one*, 7(11), e48587.