Anti-XBP1 Antibody [JM10-62]

ET1703-23

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P, IF-Cell, IF-Tissue, FC
Molecular Wt:	Predicted band size: 29 kDa
Clone number:	JM10-62

Description: X-box binding protein 1, also known as XBP1, is a protein which in humans is encoded by the XBP1 gene. The XBP1 protein is a transcription factor that regulates the expression of genes important to the proper functioning of the immune system and in the cellular stress response. It was first identified by its ability to bind to the Xbox, a conserved transcriptional element in the promoter of the human leukocyte antigen (HLA) DR alpha. Abnormalities in XBP1 lead to a heightened ER stress and subsequently causes a heightened susceptibility for inflammatory processes that may contribute to Alzheimer's disease. In the colon, XBP1 anomalies have been linked to Crohn's disease.

Immunogen: Synthetic peptide within Human XBP1 aa 126-175 / 261.

Positive control: 293T cell lysate, HepG2 cell lysate, Hela, HepG2, SW480, human colon carcinoma tissue, mouse liver tissue, 293T.

Subcellular location: Nucleus, Chromosome.

Database links: SwissProt: P17861 Human | O35426 Mouse

Recommended Dilutions:

WB	1:500-1:1,000
IF-Cell	1:100-1:500
IF-Tissue	1:100-1:500
IHC-P	1:50-1:200
FC	1:50-1:100

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

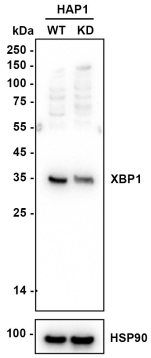

Fig1: Western blot analysis of XBP1 on different lysates with Rabbit anti-XBP1 antibody (ET1703-23) at 1/1,000 dilution.

Lane 1: HAP1-parental cell lysate
Lane 2: HAP1-XBP1 KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 29 kDa
Observed band size: 35 kDa

Exposure time: 6 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1703-23) at 1/1,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

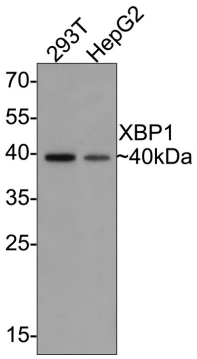

Fig2: Western blot analysis of XBP1 on different lysates with Rabbit anti-XBP1 antibody (ET1703-23) at 1/500 dilution.

Lane 1: 293T cell lysate
Lane 2: HepG2 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 29 kDa
Observed band size: 40 kDa

Exposure time: 2 minutes;

12% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1703-23) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

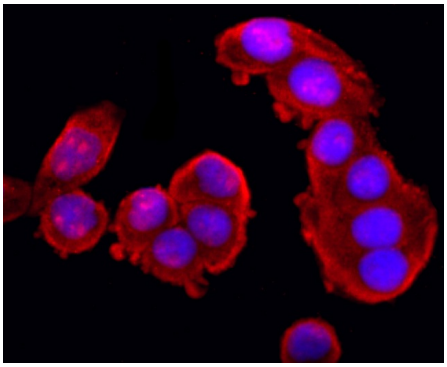

Fig3: ICC staining XBP1 in Hela cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

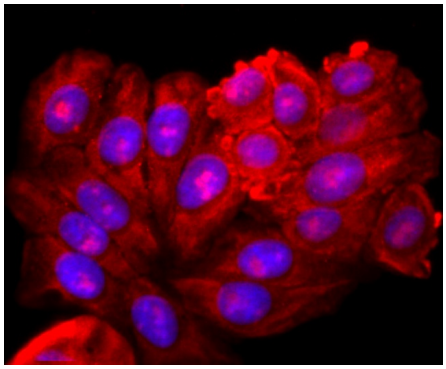

Fig4: ICC staining XBP1 in HepG2 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

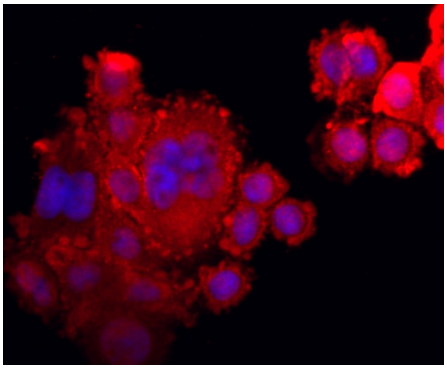

Fig5: ICC staining XBP1 in SW480 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

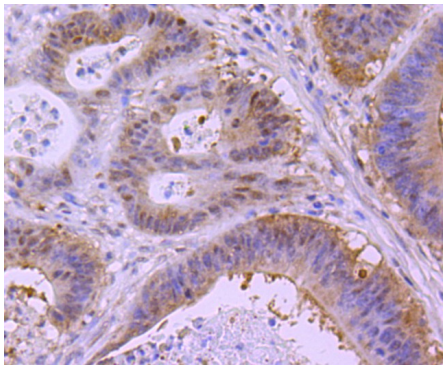

Fig6: Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue with Rabbit anti-XBP1 antibody (ET1703-23) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1703-23) at 1/50 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

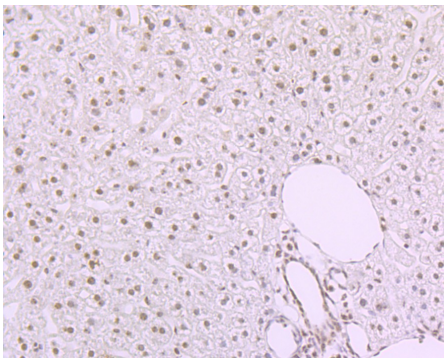

Fig7: Immunohistochemical analysis of paraffin-embedded mouse liver tissue with Rabbit anti-XBP1 antibody (ET1703-23) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1703-23) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

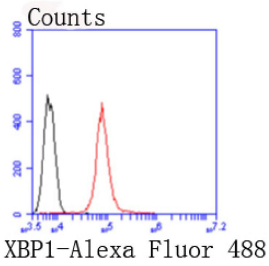

Fig8: Flow cytometric analysis of 293T cells with XBP1 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Krawczyk KK et al. Assessing the contribution of thrombospondin-4 induction and ATF6a activation to endoplasmic reticulum expansion and phenotypic modulation in bladder outlet obstruction. Sci Rep 6:32449 (2016).
2. Prell T et al. The unfolded protein response in models of human mutant G93A amyotrophic lateral sclerosis. Eur J Neurosci 35:652-60 (2012).