

For Research Use Only

XBP1S/XBP1U Polyclonal antibody

Catalog Number: 24168-1-AP

Featured Product

18 Publications



Basic Information

Catalog Number:

24168-1-AP

Size:

150ul, Concentration: 1000 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG21454

GenBank Accession Number:

BC000938

GeneID (NCBI):

7494

UNIPROT ID:

P17861

Full Name:

X-box binding protein 1

Calculated MW:

261 aa, 29 kDa

Observed MW:

~32 kDa; ~60 kDa

Purification Method:

Antigen Affinity purified

Recommended Dilutions:

WB 1:1000-1:5000

IHC 1:50-1:500

Applications

Tested Applications:

WB, IHC, FC (Intra), ELISA

Cited Applications:

WB, IHC, ChIP

Species Specificity:

human, mouse

Cited Species:

human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HepG2 cells, HEK-293 cells, Jurkat cells, Raji cells

IHC : human breast cancer tissue, mouse liver tissue, human colon cancer tissue, human liver cancer tissue

Background Information

XBP1 is also named as XBP2, belongs to the bZIP family. The X-box-binding protein-1 (XBP1) is a transcriptional regulator of the ER stress response that lies downstream of inositol-requiring enzyme 1 (IRE1 α) activation (PMID: 14559994). IRE1 α possesses both kinase and ribonuclease activity and processes XBP1 mRNA to produce an active transcription factor in response to ER stress (PMID: 11779464, 11780124). It has been found that upon accumulation of unfolded proteins in the endoplasmic reticulum, 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. The resulting loss of 26 nt from the spliced mRNA causes a frame-shift and an isoform XBP1S, which is the functionally active transcription factor. The isoform encoded by the unspliced mRNA, XBP1U, is constitutively expressed, and thought to function as a negative feedback regulator of XBP1S, which shuts off transcription of target genes during the recovery phase of ER stress (PMID: 11850408). The unspliced XBP1U isoform is composed of 261 amino acid residues, and the spliced XBP1S isoform is composed of 376 amino acid residues. The XBP1 antibody (24168-1-AP) can detect both XBP1U and XBP1S.

Notable Publications

Author	Pubmed ID	Journal	Application
Yanxia Huang	32967957	J Virol	WB
Xue YANG	34514754	J Zhejiang Univ Sci B	WB
Weiwei Sheng	33028359	J Exp Clin Cancer Res	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

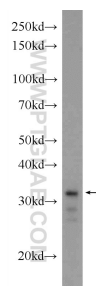
For technical support and original validation data for this product please contact:

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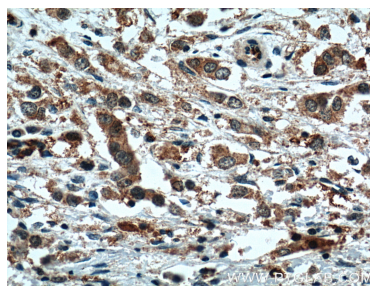
E: proteintech@ptglab.com
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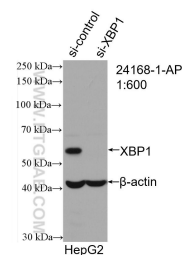
Selected Validation Data



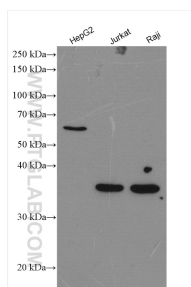
HEK-293 cells were subjected to SDS PAGE followed by western blot with 24168-1-AP (XBP1 Antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.



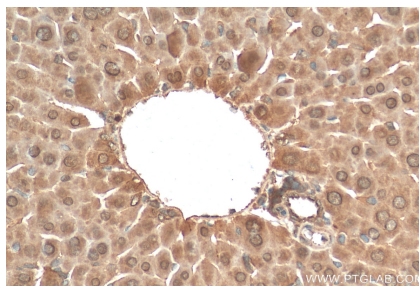
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 24168-1-AP (XBP1 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



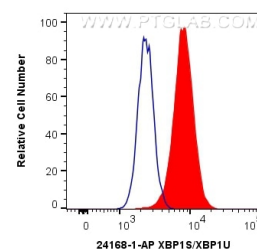
WB result of XBP1S/XBP1U antibody (24168-1-AP; 1:600; incubated at room temperature for 1.5 hours) with sh-Control and sh-XBP1S/XBP1U transfected HepG2 cells.



Various lysates were subjected to SDS PAGE followed by western blot with 24168-1-AP (XBP1S/XBP1U antibody) at dilution of 1:2500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 24168-1-AP (XBP1S/XBP1U antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10⁶ HepG2 cells were intracellularly stained with 0.4 ug Anti-Human XBP1S/XBP1U (24168-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).