

For Research Use Only

# CoraLite® Plus 488-conjugated XBP1S/XBP1U Polyclonal antibody

Catalog Number: CL488-24168

Featured Product



## Basic Information

### Catalog Number:

CL488-24168

### Size:

100ul, 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 purification

### Recommended Dilutions:

FC (Intra): 0.80 ug per 10<sup>6</sup> cells in a 100 µl suspension

### Excitation/Emission maxima wavelengths:

493 nm / 522 nm

## Applications

### Tested Applications:

FC (Intra)

### Species Specificity:

human, mouse

### Positive Controls:

FC (Intra) : HepG2 cells,

## 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 (IRE1α) activation (PMID: 14559994). IRE1α 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.

## Storage

### Storage:

Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

### Storage Buffer:

PBS with 50% glycerol, 0.05% Proclin300, 0.5% BSA, pH7.3

Aliquoting is unnecessary for -20°C storage

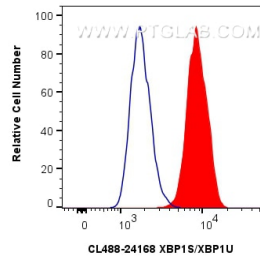
For technical support and original validation data for this product please contact:

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## Selected Validation Data



1X10<sup>6</sup> HepG2 cells were intracellularly stained with 0.8 ug CoraLite® Plus 488 Anti-Human XBP1S/XBP1U (CL488-24168) (red), or 0.8 ug CoraLite® Plus 488-conjugated Rabbit IgG control Rabbit PolyAb (CL488-30000, Clone: ) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).