

## Anti-Phospho-eIF2 $\alpha$ (Ser51) Antibody (1F908)

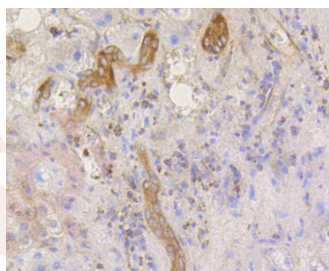
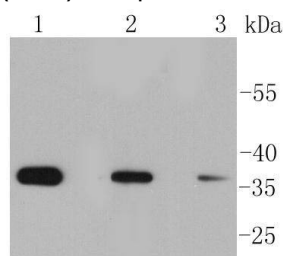
### Product Details

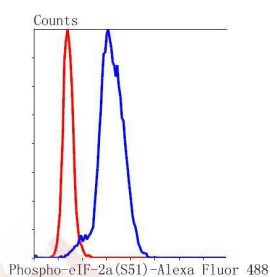
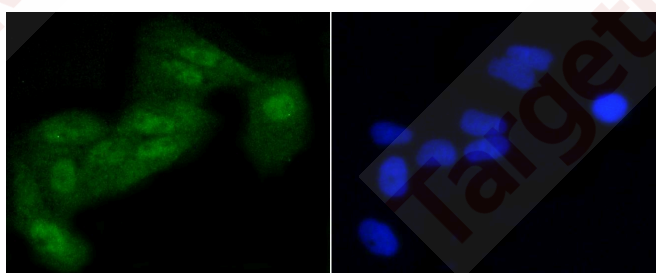
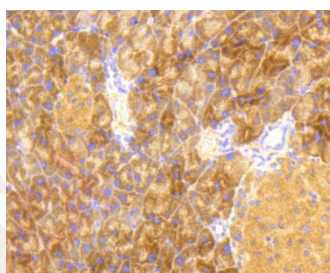
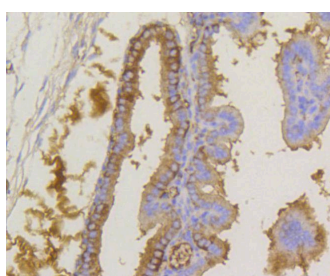
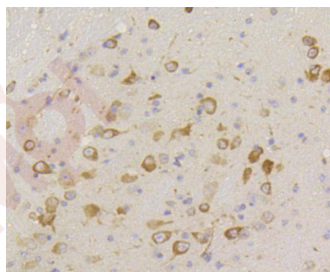
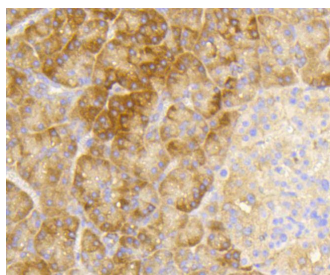
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 36 kDa.
Clone:	1F908
Purification:	ProA affinity purified

### Applications

#### Verified Activity:

1. Western blot analysis of Phospho-eIF-2 $\alpha$  (S51) on different lysates using anti-Phospho-eIF-2 $\alpha$  (S51) antibody at 1/1,000 dilution. Positive control: Lane 1: HeLa, Lane 2: HUVEC, Lane 3: PC12.
2. Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-Phospho-eIF-2 $\alpha$  (S51) antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded human pancreas tissue using anti-Phospho-eIF-2 $\alpha$  (S51) antibody. Counter stained with hematoxylin.
4. Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-Phospho-eIF-2 $\alpha$  (S51) antibody. Counter stained with hematoxylin.
5. Immunohistochemical analysis of paraffin-embedded mouse placenta tissue using anti-Phospho-eIF-2 $\alpha$  (S51) antibody. Counter stained with hematoxylin.
6. Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue using anti-Phospho-eIF-2 $\alpha$  (S51) antibody. Counter stained with hematoxylin.
7. ICC staining Phospho-eIF-2 $\alpha$  (S51) in HeLa cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
8. Flow cytometric analysis of HeLa cells with Phospho-eIF-2 $\alpha$  (S51) antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody;





Application: FCM, ICC/IF, IHC, IP, WB

Recommended WB: 1:1000; IHC: 1:50-200; ICC/IF: 1:50-200; FCM: 1:50-100

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

---

### Antigen Details

Immunogen: A synthesized phosphopeptide: human eIF-2 $\alpha$  around the phosphorylation site of Ser51

Antigen Species: human

Uniprot ID: Q9BY44

Synonyms: eIF2 $\alpha$  (p-Ser51);Phospho-eIF2 $\alpha$  (S51);EIF-2;EIF-2 $\alpha$ ;EIF-2 $\alpha$ ;p-eIF2 $\alpha$  (Ser51);eIF2 $\alpha$  (p-S51); EIF-2A;EIF2 $\alpha$ ;EIF2;p-eIF2 $\alpha$  (S51);EIF2A

---

### Research Background

Phosphorylation of the eukaryotic initiation factor 2 (eIF2)  $\alpha$  subunit is a well-documented mechanism to downregulate protein synthesis under a variety of stress conditions. Eukaryotic initiation factor 2 binds GTP and Met-tRNA<sup>i</sup> and transfers Met-tRNA to the 40S subunit to form the 43S preinitiation complex. eIF2 promotes a new round of translation initiation by exchanging GDP for GTP, a reaction catalyzed by eIF2B. Kinases that are activated by viral infection (PKR), endoplasmic reticulum stress (PERK/PEK), amino acid deprivation (GCN2), or heme deficiency (HRI) can phosphorylate the  $\alpha$  subunit of eIF2. This phosphorylation stabilizes the eIF2-GDP-eIF2B complex and inhibits the turnover of eIF2B. Induction of PKR by IFN- $\gamma$ ; and TNF- $\alpha$ ; induces potent phosphorylation of eIF2 $\alpha$  at Ser51.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481