

## EIF2S1 monoclonal antibody

Catalog: MB66601

Host: Mouse

Reactivity: Human, Mouse, Rat

### 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. eIF2 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.

### Product:

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

### Molecular Weight:

~ 38 kDa

### Swiss-Prot:

P05198

### Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

### Applications:

WB (1/500 - 1/1000), IF/ICC (1/50 - 1/100), IP (1/10 - 1/50)

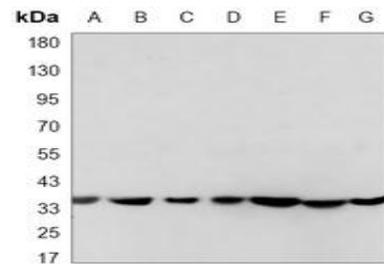
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

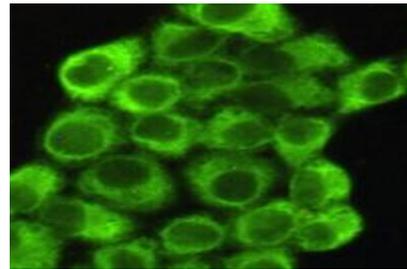
### Specificity:

Recognizes endogenous levels of EIF2S1 protein.

### DATA:



Western blot analysis of EIF2S1 expression in K562 (A), COS7 (B), NIH3T3 (C), C2C12 (D), MCF7 (E), C6 (F), HeLa (G) whole cell lysates.



Immunofluorescent analysis of EIF2S1 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

### Note:

For research use only, not for use in diagnostic procedure.

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