**BACKGROUND**

The initiation of protein synthesis in eukaryotic cells is regulated by interactions between protein initiation factors and RNA molecules. The eukaryotic initiation factor 4E family (eIF4E) is comprised of three proteins that are involved in the early initiation of protein synthesis. eIF4E2 (eukaryotic translation initiation factor 4E family member 2), also known as 4EHP, 4E-LP or ElF4E13, is a ubiquitously expressed 245 amino acid protein. During early translation events, eIF4E2 recognizes and binds the 7-methylguanosine-containing mRNA cap (a co-transcriptionally added structure that conveys mRNA stability and allows for efficient RNA processing), thus initiating the unwinding of mRNA secondary structures and facilitating mRNA-ribosome binding. eIF4E2 competes with eIF4E (member 1) for cap binding and, upon modification by the ubiquitin-like protein ISG15 (interferon-induced 15 kDa protein), exhibits increased mRNA cap affinity.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: Elf4E2 (human) mapping to 2q37.1; Elf4e2 (mouse) mapping to 1D.

**SOURCE**

Elf4E2 (YB-18) is a mouse monoclonal antibody raised against recombinant elf4E2 of human origin.

**PRODUCT**

Each vial contains 100 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Elf4E2 (YB-18) is recommended for detection of elf4E2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:1500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of elf4E2: 31 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.