

# eIF4E2 (T-14): sc-132289



The Power to Question

## 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, IF4e, 4E-LP or EIF4EL3, 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

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## CHROMOSOMAL LOCATION

Genetic locus: EIF4E2 (human) mapping to 2q37.1; Eif4e2 (mouse) mapping to 1 D.

## SOURCE

eIF4E2 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of eIF4E2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132289 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

eIF4E2 (T-14) is recommended for detection of eIF4E2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with eIF4E1 or eIF4E3.

eIF4E2 (T-14) is also recommended for detection of eIF4E2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for eIF4E2 siRNA (h): sc-94498, eIF4E2 siRNA (m): sc-144619, eIF4E2 shRNA Plasmid (h): sc-94498-SH, eIF4E2 shRNA Plasmid (m): sc-144619-SH, eIF4E2 shRNA (h) Lentiviral Particles: sc-94498-V and eIF4E2 shRNA (m) Lentiviral Particles: sc-144619-V.

Molecular Weight of eIF4E2: 31 kDa.

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

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## RESEARCH USE

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

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Try **eIF4E2 (YB-18): sc-100731**, our highly recommended monoclonal alternative to eIF4E2 (T-14).