

eIF4E2 (E-18): sc-101945

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.

CHROMOSOMAL LOCATION

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

SOURCE

eIF4E2 (E-18) is a purified rabbit polyclonal antibody raised against an N-terminal region of eIF4E2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

eIF4E2 (E-18) 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), 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 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

eIF4E2 (E-18) is also recommended for detection of eIF4E2 in additional species, including equine, bovine and canine.

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.

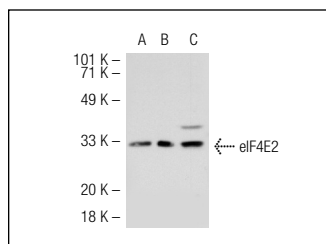
Molecular Weight of eIF4E2: 31 kDa.

Positive Controls: eIF4E2 (m2): 293T Lysate: sc-119989, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

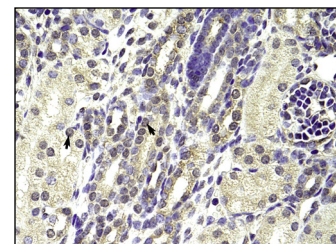
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



eIF4E2 (E-18): sc-101945. Western blot analysis of eIF4E2 expression in non-transfected 293T: sc-117752 (A), mouse eIF4E2 transfected 293T: sc-119989 (B) and HeLa (C) whole cell lysates.



eIF4E2 (E-18): sc-101945. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing nuclear and cytoplasmic staining.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



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