

eIF30 (L-18): sc-22375

BACKGROUND

The initiation of protein synthesis in eukaryotic cells is regulated by interactions between protein initiation factors and RNA molecules. Eukaryotic initiation factors (eIFs) are utilized in a sequence of reactions that lead to 80S ribosomal assembly and, ultimately, translation. The eukaryotic initiation factor-3 (eIF3) scaffolding structure is the largest of the eIF complexes and includes eIF3 α , eIF3 β , eIF3 γ , eIF3 δ , eIF3 ϵ , eIF3 ζ , eIF3 η and eIF3 θ , all of which function to control the assembly of the 40S ribosomal subunit. Association of eIF3 proteins with the 40S ribosomal subunit stabilizes eIF2-GTP-Met-tRNA^{Met} complex association and mRNA binding, and promotes dissociation of 80S ribosomes into 40S and 60S subunits, thereby promoting the assembly of the pre-initiation complex. Overexpression of eIF3 proteins is common in several cancers, suggesting a role for eIF3 proteins in tumorigenesis.

CHROMOSOMAL LOCATION

Genetic locus: EIF3A (human) mapping to 10q26.11; Eif3a (mouse) mapping to 19 D3.

SOURCE

eIF30 (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of eIF30 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-22375 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

eIF30 (L-18) is recommended for detection of eIF30 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

eIF30 (L-18) is also recommended for detection of eIF30 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for eIF30 siRNA (h): sc-40550, eIF30 siRNA (m): sc-40551, eIF30 shRNA Plasmid (h): sc-40550-SH, eIF30 shRNA Plasmid (m): sc-40551-SH, eIF30 shRNA (h) Lentiviral Particles: sc-40550-V and eIF30 shRNA (m) Lentiviral Particles: sc-40551-V.

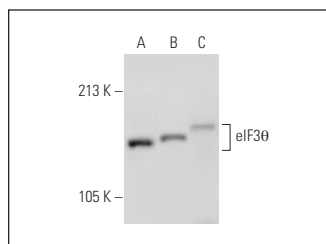
Molecular Weight of eIF30: 170 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, PANC-1 whole cell lysate: sc-364380 or U-251-MG whole cell lysate: sc-364176.

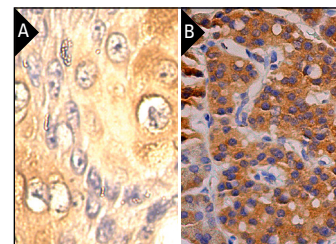
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz[™]: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



eIF30 (L-18): sc-22375. Western blot analysis of eIF30 expression in NIH/3T3 (A), U-251-MG (B) and PANC-1 (C) whole cell lysates.



eIF30 (L-18): sc-22375. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tumor tissue showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and islets of Langerhans (B).

SELECT PRODUCT CITATIONS

- Harris, T.E., et al. 2006. mTOR-dependent stimulation of the association of eIF4G and eIF3 by Insulin. EMBO J. 25: 1659-1668.

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.

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Try **eIF30 (E-1): sc-365789**, our highly recommended monoclonal alternative to eIF30 (L-18).