**eIF3ε (H-4): sc-514292**

**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) scaffold is the largest of the eIF complexes and includes eIF3α, eIF3β, eIF3γ, eIF3δ, eIF3ε, eIF3ζ, and eIF3θ, 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-tRNAiMet 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: Eif3f (mouse) mapping to chromosome 11p15.4; Eif3f (mouse) mapping to chromosome 11p15.4. Immunohistochemistry: use m-IgG as negative control. Mouse, rat and human origin. Suitable for use as control antibody for eIF3ε siRNA (h): sc-105324, eIF3ε siRNA (m): sc-144615, eIF3ε shRNA Plasmid (h): sc-105324-SH, eIF3ε shRNA Plasmid (m): sc-144615-SH, eIF3ε shRNA (h) Lentiviral Particles: sc-105324-V and eIF3ε shRNA (m) Lentiviral Particles: sc-144615-V.

Molecular Weight of eIF3ε: 52 kDa.

Positive Controls: COLO 205 whole cell lysate: sc-364177, PC-12 cell lysate: sc-2250 or SH-SY5Y cell lysate: sc-3812.

**APPLICATIONS**

eIF3ε (H-4) is recommended for detection of eIF3ε of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 parafin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).


**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG HRP: sc-514292 with DAB, 50X: sc-24982 - Blocking Reagent:

2) Immunoperoxidase: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 - Blocking Reagent:

3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG HRP: sc-514292 - Blocking Reagent:

4) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

- eIF3ε (H-4): sc-514292: Western blot analysis of eIF3ε expression in COLO 205(A), PC-12(B), SH-SY5Y(C), Daudi(D), HCT-116(E) and SUP-T1(F) whole cell lysates.

- eIF3ε (H-4): sc-514292: Immunoperoxidase staining of formalin fixed, parafin-embedded human small intestine showing cytoplasmic staining of glandular cells.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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