

# eIF3 $\beta$ (T-16): sc-30251

## 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 $\alpha$ , eIF3 $\beta$ , eIF3 $\delta$ , eIF3 $\gamma$ , eIF3 $\eta$ , eIF3 $\epsilon$ , eIF3 $\theta$  and eIF3 $\zeta$ , 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<sup>Met</sup> 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: EIF3I (human) mapping to 1p35.1; Eif3i (mouse) mapping to 4 D2.2.

## SOURCE

eIF3 $\beta$  (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of eIF3 $\beta$  of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-30251 P, (100  $\mu$ 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

eIF3 $\beta$  (T-16) is recommended for detection of eIF3 $\beta$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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).

eIF3 $\beta$  (T-16) is also recommended for detection of eIF3 $\beta$  in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for eIF3 $\beta$  siRNA (h): sc-60080, eIF3 $\beta$  siRNA (m): sc-60081, eIF3 $\beta$  shRNA Plasmid (h): sc-60080-SH, eIF3 $\beta$  shRNA Plasmid (m): sc-60081-SH, eIF3 $\beta$  shRNA (h) Lentiviral Particles: sc-60080-V and eIF3 $\beta$  shRNA (m) Lentiviral Particles: sc-60081-V.

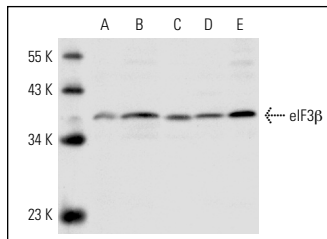
Molecular Weight of eIF3 $\beta$ : 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, T24 cell lysate: sc-2292 or LADMAC whole cell lysate: sc-364189.

## 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.

## DATA



eIF3 $\beta$  (T-16): sc-30251. Western blot analysis of eIF3 $\beta$  expression in HeLa (A), T24 (B), LADMAC (C), ME-180 (D) and Ca Ski (E) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Qiu, C., et al. 2009. Lin28-mediated post-transcriptional regulation of Oct4 expression in human embryonic stem cells. *Nucleic Acids Res.* 38: 1240-1248.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **eIF3 $\beta$  (A-7): sc-374156** or **eIF3 $\beta$  (B-6): sc-271539**, our highly recommended monoclonal alternatives to eIF3 $\beta$  (T-16).