SANTA CRUZ BIOTECHNOLOGY, INC.

eIF3β (H-300): sc-50357

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 eIF3α, eIF3β, eIF3γ, eIF3δ, eIF3ε, eIF3ζ, eIF3η 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 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: EIF3S2 (human) mapping to 1p35.1; Eif3s2 (mouse) mapping to 4 D2.2.

SOURCE

eIF3β (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping within an internal region of eIF3β 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.

STORAGE

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

APPLICATIONS

eIF3β (H-300) is recommended for detection of eIF3β 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).

eIF3β (H-300) is also recommended for detection of eIF3β in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for eIF3β siRNA (h): sc-60080, eIF3β siRNA (m): sc-60081, eIF3β shRNA Plasmid (h): sc-60080-SH, eIF3β shRNA Plasmid (m): sc-60081-SH, eIF3β shRNA (h) Lentiviral Particles: sc-60080-V and eIF3β shRNA (m) Lentiviral Particles: sc-60081-V.

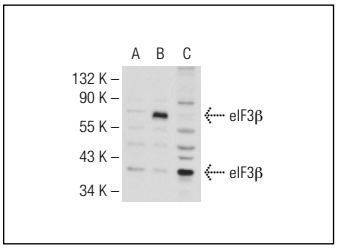
Molecular Weight of eIF3β: 36 kDa.

Positive Controls: eIF3β (h2): 293T Lysate: sc-173271, HeLa whole cell lysate: sc-2200 or T24 cell lysate: sc-2292.

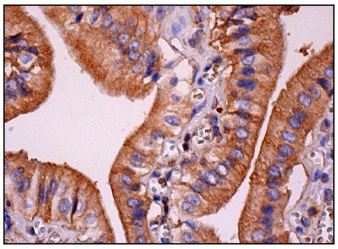
RECOMMENDED SECONDARY REAGENTS

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



eIF3β (H-300): sc-50357. Western blot analysis of eIF3β expression in non-transfected 293T: sc-117752 (**A**), human eIF3β transfected 293T: sc-173271 (**B**) and HeLa (**C**) whole cell lysates.



eIF3β (H-300): sc-50357. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Ramachandran, A., et al. 2012. Localization of transforming growth factor β receptor II interacting protein-1 in bone and teeth: implications in matrix mineralization. J. Histochem. Cytochem. 60: 323-337.

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.