

# eIF4B (D-16): sc-82587

## BACKGROUND

The initiation of protein synthesis in eukaryotic cells is regulated by interactions between protein initiation factors and RNA molecules. These interactions are facilitated, in part, by the eukaryotic initiation factor 4 family (eIF4) of proteins that are involved in the early initiation of protein synthesis. eIF4B (eukaryotic translation initiation factor 4B) is a 611 amino acid protein that contains one RNA recognition motif and belongs to the eIF4 protein family. Required for proper mRNA/ribosome binding, eIF4B associates with other eIF4 proteins, such as eIF4A, and promotes the ATP-dependent unwinding activity of select eukaryotic initiation factors. The gene encoding eIF4B maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome.

## CHROMOSOMAL LOCATION

Genetic locus: EIF4B (human) mapping to 12q13.13; Eif4b (mouse) mapping to 15 F3.

## SOURCE

eIF4B (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of eIF4B 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.

Blocking peptide available for competition studies, sc-82587 P, (100 µg 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

eIF4B (D-16) is recommended for detection of eIF4B 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other eIF family members.

eIF4B (D-16) is also recommended for detection of eIF4B in additional species, including equine and canine.

Suitable for use as control antibody for eIF4B siRNA (h): sc-77253, eIF4B siRNA (m): sc-77254, eIF4B shRNA Plasmid (h): sc-77253-SH, eIF4B shRNA Plasmid (m): sc-77254-SH, eIF4B shRNA (h) Lentiviral Particles: sc-77253-V and eIF4B shRNA (m) Lentiviral Particles: sc-77254-V.

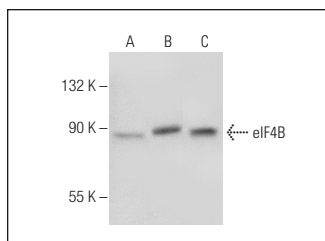
Molecular Weight of eIF4B: 80 kDa.

Positive Controls: eIF4B (h): 293T Lysate: sc-111557, HeLa whole cell lysate: sc-2200 or Ramos cell lysate: sc-2216.

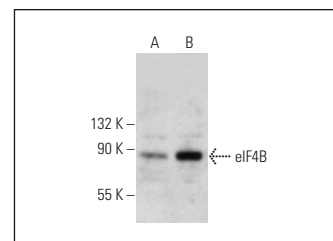
## RECOMMENDED SECONDARY REAGENTS

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



eIF4B (D-16): sc-82587. Western blot analysis of eIF4B expression in non-transfected 293T: sc-117752 (A), human eIF4B transfected 293T: sc-111557 (B) and Ramos (C) whole cell lysates.



eIF4B (D-16): sc-82587. Western blot analysis of eIF4B expression in MCF7 (A) and HeLa (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Locker, N., et al. 2011. A conserved structure within the HIV gag open reading frame that controls translation initiation directly recruits the 40S subunit and eIF3. *Nucleic Acids Res.* 39: 2367-2377.

## 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.



Try **eIF4B (D-4): sc-376062** or **eIF4B (A-2): sc-390912**, our highly recommended monoclonal alternatives to eIF4B (D-16).