

# eIF3 $\alpha$ (H-250): sc-50356

## 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 $\gamma$ , eIF3 $\delta$ , eIF3 $\epsilon$ , eIF3 $\zeta$ , eIF3 $\eta$  and eIF3 $\theta$ , 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>iMet</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.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: EIF3S1 (human) mapping to 15q21.1; Eif3s1 (mouse) mapping to 2 E5.

## SOURCE

eIF3 $\alpha$  (H-250) is a rabbit polyclonal antibody raised against amino acids 9-258 mapping at the C-terminus of eIF3 $\alpha$  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.

## APPLICATIONS

eIF3 $\alpha$  (H-250) is recommended for detection of eIF3 $\alpha$  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).

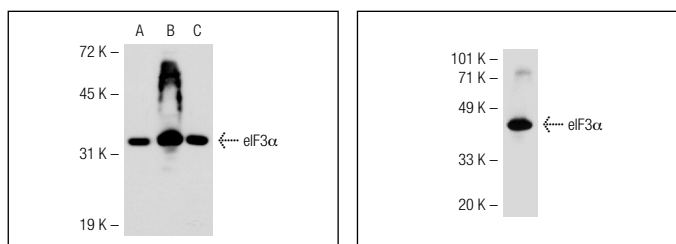
eIF3 $\alpha$  (H-250) is also recommended for detection of eIF3 $\alpha$  in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for eIF3 $\alpha$  siRNA (h): sc-40547, eIF3 $\alpha$  siRNA (m): sc-40548, eIF3 $\alpha$  shRNA Plasmid (h): sc-40547-SH, eIF3 $\alpha$  shRNA Plasmid (m): sc-40548-SH, eIF3 $\alpha$  shRNA (h) Lentiviral Particles: sc-40547-V and eIF3 $\alpha$  shRNA (m) Lentiviral Particles: sc-40548-V.

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

Positive Controls: eIF3 $\alpha$  (m): 293T Lysate: sc-126778, Jurkat whole cell lysate: sc-2204 or MES-SA/Dx5 cell lysate: sc-2284.

## DATA



eIF3 $\alpha$  (H-250): sc-50356. Western blot analysis of eIF3 $\alpha$  expression in non-transfected 293T: sc-117752 (A), mouse eIF3 $\alpha$  transfected 293T: sc-126778 (B) and Jurkat (C) whole cell lysates.

## STORAGE

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

## RESEARCH USE

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



Try **eIF3 $\alpha$  (H-1): sc-376651**, our highly recommended monoclonal alternative to eIF3 $\alpha$  (H-250).