SANTA CRUZ BIOTECHNOLOGY, INC.

eIF2β (H-203): sc-28851

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. The eukaryotic initiation complex eIF2 exists as a heterotrimeric complex of eIF2α, eIF2β and eIF2γ. eIF2 functions in the early stages of protein synthesis, by forming a ternary complex with GTP and tRNA. This complex binds to the 40S ribosomal subunit, followed by mRNA binding to 40S to form the 43S preinitiation complex, the release of eIF2 from 40S and the hydrolysis of GTP. Phosphorylation of eIF2α correlates with inhibition of translation initiation.

REFERENCES

1. Trachsel, H. and Staehelin, T. 1978. Binding and release of eukaryotic initiation factor eIF2 and GTP during protein synthesis initiation. Proc. Natl. Acad. Sci. USA 75: 204-208.
2. Benne, R., Amesz, H., Hershey, J.W. and Voorma, H.O. 1979. The activity of eukaryotic initiation factor eIF2 in ternary complex formation with GTP and Met-tRNA. J. Biol. Chem. 254: 3201-3205.

CHROMOSOMAL LOCATION

Genetic locus: EIF2S2 (human) mapping to 20q11.22; Eif2s2 (mouse) mapping to 2 H1.

SOURCE

eIF2β (H-203) is a rabbit polyclonal antibody raised against amino acids 131-333 mapping at the C-terminus of eIF2β 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.

RESEARCH USE

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

APPLICATIONS

eIF2β (H-203) is recommended for detection of eIF2β 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).

eIF2β (H-203) is also recommended for detection of eIF2β in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for eIF2β siRNA (h): sc-35270, eIF2β siRNA (m): sc-35271, eIF2β shRNA Plasmid (h): sc-35270-SH, eIF2β shRNA Plasmid (m): sc-35271-SH, eIF2β shRNA (h) Lentiviral Particles: sc-35270-V and eIF2β shRNA (m) Lentiviral Particles: sc-35271-V.

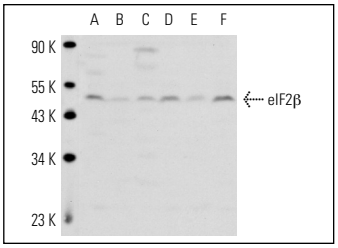
Molecular Weight of eIF2β: 45 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, NIH/3T3 whole cell lysate: sc-2210 or A-431 whole cell lysate: sc-2201.

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.

DATA



eIF2β (H-203): sc-28851. Western blot analysis of eIF2β expression in KNRK (**A**), HeLa (**B**), Jurkat (**C**), K-562 (**D**), A-431 (**E**) and NIH/3T3 (**F**) 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **eIF2β (P-3): sc-9978** or **eIF2β (C-1): sc-133133**, our highly recommended monoclonal alternatives to eIF2β (H-203).