

eIF2B δ (H-280): sc-28855

BACKGROUND

The initiation of protein synthesis in eukaryotic cells is regulated by interactions between protein initiation factors and RNA molecules. The eukaryotic initiation complex eIF2B exists as a five subunit complex composed of eIF2B α , eIF2B β , eIF2B γ , eIF2B δ , and eIF2B ϵ . The eIF2B complex catalyzes the exchange of GDP for GTP on the eIF2 complex, following the interaction of eIF2/GTP with the 40S ribosomal subunit. Guanine nucleotide exchange factor (GEF) activity is exhibited by the eIF2B ϵ subunit alone, but is greater in the presence of all five eIF2B subunits. Phosphorylation of eIF2 inhibits GEF activity of eIF2B, an inhibition that requires the eIF2B α subunit.

REFERENCES

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- Price, N.T., et al. 1996. Cloning of cDNA for the γ -subunit of mammalian translation initiation factor 2B, the guanine nucleotide-exchange factor for eukaryotic initiation factor 2. *Biochem. J.* 318: 631-636.
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- Asuru, A.I., et al. 1996. Cloning and characterization of cDNAs encoding the ϵ -subunit of eukaryotic initiation factor-2B from rabbit and human. *Biochim. Biophys. Acta* 1307: 309-317.
- Webb, B.L. and Proud, C.G. 1997. Eukaryotic initiation factor 2B (eIF2B). *Int. J. Biochem. Cell Biol.* 29: 1127-1131.

CHROMOSOMAL LOCATION

Genetic locus: EIF2B4 (human) mapping to 2p23.3; Eif2b4 (mouse) mapping to 5 B1.

SOURCE

eIF2B δ (H-280) is a rabbit polyclonal antibody raised against amino acids 224-503 mapping near the C-terminus of eIF2B δ of human origin.

PRODUCT

Each vial contains 200 μ g 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.

PROTOCOLS

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

APPLICATIONS

eIF2B δ (H-280) is recommended for detection of eIF2B δ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

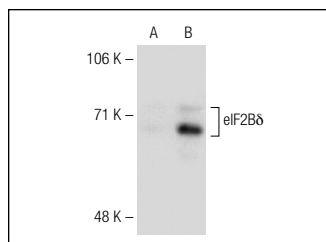
eIF2B δ (H-280) is also recommended for detection of eIF2B δ in additional species, including equine, canine and bovine.

Suitable for use as control antibody for eIF2B δ siRNA (h): sc-35276, eIF2B δ siRNA (m): sc-35277, eIF2B δ shRNA Plasmid (h): sc-35276-SH, eIF2B δ shRNA Plasmid (m): sc-35277-SH, eIF2B δ shRNA (h) Lentiviral Particles: sc-35276-V and eIF2B δ shRNA (m) Lentiviral Particles: sc-35277-V.

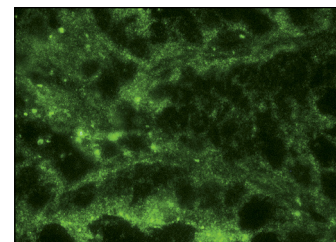
Molecular Weight of eIF2B δ : 60 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, K-562 whole cell lysate: sc-2203 or eIF2B δ (m): 293T Lysate: sc-119970.

DATA



eIF2B δ (H-280): sc-28855. Western blot analysis of eIF2B δ expression in non-transfected: sc-117752 (A) and mouse eIF2B δ transfected: sc-119970 (B) 293T whole cell lysates.



eIF2B δ (H-280): sc-28855. Immunofluorescence staining of normal mouse intestine frozen section showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

- Martin, L., et al. 2010. Regulation of the unfolded protein response by eIF2B δ isoforms. *J. Biol. Chem.* 285: 31944-31953.

RESEARCH USE

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



Try **eIF2B δ (P-6): sc-9981** or **eIF2B δ (H-4): sc-271795**, our highly recommended monoclonal alternatives to eIF2B δ (H-280).