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eIF2B β (h2): 293T Lysate: sc-172832

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 eIF2 α , eIF2 β , eIF2 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 eIF2 α subunit.

REFERENCES

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3. Ernst, H., Duncan, R.F. and Hershey, J.W. 1987. Cloning and sequencing of complementary DNAs encoding the α -subunit of translational initiation factor eIF2. Characterization of the protein and its messenger RNA. *J. Biol. Chem.* 262: 1206-1212.
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6. Gaspar, N.J., Kinzy, T.G., Scherer, B.J., Humbelin, M., Hershey, J.W. and Merrick, W.C. 1994. Translation initiation factor eIF2. Cloning and expression of the human cDNA encoding the γ subunit. *J. Biol. Chem.* 269: 3415-3422.

CHROMOSOMAL LOCATION

Genetic locus: EIF2B2 (human) mapping to 14q24.3.

PRODUCT

eIF2B β (h2): 293T Lysate represents a lysate of human eIF2B β transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

eIF2B β (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive eIF2B β antibodies. Recommended use: 10-20 μ l per lane.

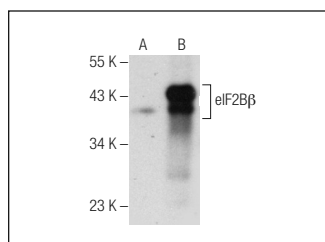
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

eIF2B β (E-12): sc-376478 is recommended as a positive control antibody for Western Blot analysis of enhanced human eIF2B β expression in eIF2B β transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

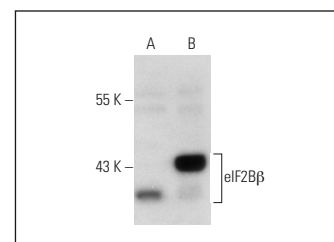
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



eIF2B β (E-12): sc-376478. Western blot analysis of eIF2B β expression in non-transfected: sc-117752 (A) and human eIF2B β transfected: sc-172832 (B) 293T whole cell lysates.



eIF2B β (P-4): sc-9979. Western blot analysis of eIF2B β expression in non-transfected: sc-117752 (A) and human eIF2B β transfected: sc-172832 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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