SANTA CRUZ BIOTECHNOLOGY, INC.

eIF4AII (h): 293T Lysate: sc-173378

BACKGROUND

The eukaryotic translation factor 4A (eIF4A) is a member of DEA(D/H)-box RNA helicase family that couples ATP hydrolysis to RNA binding and duplex separation. eIF4A participates in the initiation of translation by unwinding secondary structure in the 5'-untranslated region of mRNAs and facilitating scanning by the 40 S ribosomal subunit for the initiation codon. eIF4AIII is a component of the exon junction complex (EJC) that assembles near exon-exon junctions of mRNAs as a result of splicing. eIF4AIII, but not eIF4AI or eIF4AII, preferentially associates with spliced mRNA. eIF4AIII is found in the nucleus whereas eIF4AI and eIF4AII are found in the cytoplasm.

REFERENCES

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3. Rogers, G.W., Jr., et al. 2001. Further characterization of the helicase activity of eIF4A. Substrate specificity. J. Biol. Chem. 276: 12598-12608.
4. Li, W., et al. 2001. Eukaryotic initiation factors 4A (eIF4A) and 4G (eIF4G) mutually interact in a 1:1 ratio *in vivo*. J. Biol. Chem. 276: 29111-29115.
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6. Montero-Lomeli, M., et al. 2002. The initiation factor eIF4A is involved in the response to lithium stress in *Saccharomyces cerevisiae*. J. Biol. Chem. 277: 21542-21548.
7. Goke, A., et al. 2002. DUG is a novel homologue of translation initiation factor 4G that binds eIF4A. Biochem. Biophys. Res. Commun. 297: 78-82.
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CHROMOSOMAL LOCATION

Genetic locus: EIF4A2 (human) mapping to 3q27.3.

PRODUCT

eIF4AII (h): 293T Lysate represents a lysate of human eIF4AII transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

eIF4AII (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive eIF4AII antibodies. Recommended use: 10-20 µl per lane.

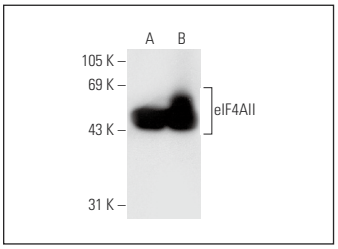
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

eIF4AII (H-5): sc-137148 is recommended as a positive control antibody for Western Blot analysis of enhanced human eIF4AII expression in eIF4AII transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

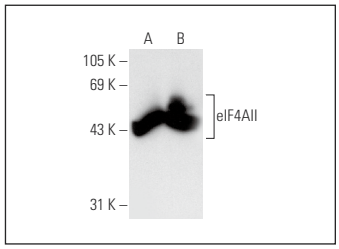
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



eIF4AII (H-5): sc-137148. Western blot analysis of eIF4AII expression in non-transfected: sc-117752 (**A**) and human eIF4AII transfected: sc-173378 (**B**) 293T whole cell lysates.



eIF4AII (G-5): sc-137147. Western blot analysis of eIF4AII expression in non-transfected: sc-117752 (**A**) and human eIF4AII transfected: sc-173378 (**B**) 293T whole cell lysates.

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.