SANTA CRUZ BIOTECHNOLOGY, INC.

U2 SnRNP A (B-6): sc-393803

BACKGROUND

Small nuclear ribonucleoproteins, also known as snRNPs, combine with other proteins to form spliceosomes, a complex that catalyzes pre-mRNA splicing. There are two types of spliceosomes: U2 and U12. The U2-type spliceosome is found in all eukaryotes and excises U2-type introns, which account for the majority of pre-mRNA introns. The U12-type spliceosome removes U12-type introns, which comprise less than 1% of all human introns. U2 SnRNP A, also known as SNRPA1 or U2A, is a component of the U2 snRNP that forms a complex with U2 snRNP B (U2B). Together, U2 SnRNP A and U2 snRNP B form a complex that binds to the U2 SnRNA hairpin IV. The configuration of this U2 SnRNP A/U2 snRNP B dimer and the subtle variations of a few key residues regulate the snRNP-RNA-binding specificity. U2 SnRNP A is a 255 amino acid protein, and two isoforms exist as a result of alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: SNRPA1 (human) mapping to 15q26.3; Snrpa1 (mouse) mapping to 7 C.

SOURCE

U2 SnRNP A (B-6) is a mouse monoclonal antibody raised against amino acids 1-255 representing full length U2 snRNP A of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-393803 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

U2 SnRNP A (B-6) is recommended for detection of U2 snRNP A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

U2 SnRNP A (B-6) is also recommended for detection of U2 snRNP A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for U2 snRNP A siRNA (h): sc-89928, U2 snRNP A siRNA (m): sc-154833, U2 snRNP A shRNA Plasmid (h): sc-89928-SH, U2 snRNP A shRNA Plasmid (m): sc-154833-SH, U2 snRNP A shRNA (h) Lentiviral Particles: sc-89928-V and U2 snRNP A shRNA (m) Lentiviral Particles: sc-154833-V.

U2 SnRNP A (B-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

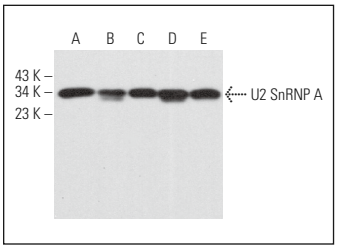
Molecular Weight of U2 SnRNP A: 28 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, U-698-M whole cell lysate: sc-364799 or human liver extract: sc-363766.

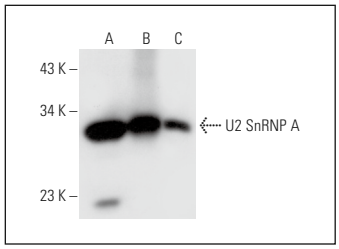
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



U2 SnRNP A (B-6): sc-393803. Western blot analysis of U2 SnRNP A expression in Jurkat (**A**), Hep G2 (**B**), HUV-EC-C (**C**), c4 (**D**) and RAW 264.7 (**E**) whole cell lysates.



U2 SnRNP A (B-6): sc-393803. Western blot analysis of U2 SnRNP A expression in Jurkat (**A**) and U-698-M (**B**) whole cell lysates and human liver tissue extract (**C**).

SELECT PRODUCT CITATIONS

1. Llorian, M., et al. 2016. The alternative splicing program of differentiated smooth muscle cells involves concerted non-productive splicing of post-transcriptional regulators. Nucleic Acids Res. 44: 8933-8950.

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 for detailed protocols and support products.