SANTA CRUZ BIOTECHNOLOGY, INC.

U11/U12 snRNP 35K (G-21): sc-102146

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. The U12-type spliceosome is comprised of the U11 and U12 snRNPs as well as the U4/U6.U5 tri-snRNP. U11 and U12 bind as a U11/U12 di-snRNP complex, which recognizes the 5' splice site of the pre-mRNA during the first steps of U12-type spliceosome formation. U11/U12 snRNPs contain several proteins, including seven that are unique to the U11/U12snRNP: 65K, 59K, 48K, 35K, 31K, 25K and 20K. U11/U12 snRNP 35K is a 246 amino acid protein localized to the nucleus, and it contains a motif known to mediate RNA binding. Two named isoforms of this protein exist as a result of alternative splicing events.

REFERENCES

1. Will, C.L., et al. 2001. A novel U2 and U11/U12 snRNP protein that associates with the pre-mRNA branch site. EMBO J. 20: 4536-4546.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610750. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Will, C.L., et al. 2004. The human 18S U11/U12 snRNP contains a set of novel proteins not found in the U2-dependent spliceosome. RNA 10: 929-941.
4. Benecke, H., et al. 2005. The U11/U12 snRNP 65K protein acts as a molecular bridge, binding the U12 snRNA and U11-59K protein. EMBO J. 24: 3057-3069.
5. Golas, M.M., et al. 2005. Major conformational change in the complex SF3b upon integration into the spliceosomal U11/U12 di-snRNP as revealed by electron cryomicroscopy. Mol. Cell 17: 869-883.

CHROMOSOMAL LOCATION

Genetic locus: SNRNP35 (human) mapping to 12q24.31; Snrnp35 (mouse) mapping to 5 F.

SOURCE

U11/U12 snRNP 35K (G-21) is a purified rabbit polyclonal antibody raised against U11/U12 snRNP 35K of human origin.

PRODUCT

Each vial contains 100 µg of IgG in PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

U11/U12 snRNP 35K (G-21) is recommended for detection of U11/U12 snRNP 35K of mouse 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for U11/U12 snRNP 35K siRNA (h): sc-96224, U11/U12 snRNP 35K siRNA (m): sc-154832, U11/U12 snRNP 35K shRNA Plasmid (h): sc-96224-SH, U11/U12 snRNP 35K shRNA Plasmid (m): sc-154832-SH, U11/U12 snRNP 35K shRNA (h) Lentiviral Particles: sc-96224-V and U11/U12 snRNP 35K shRNA (m) Lentiviral Particles: sc-154832-V.

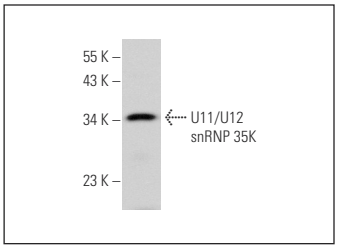
Molecular Weight of U11/U12 snRNP 35K: 29 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or mouse brain extract: sc-2253.

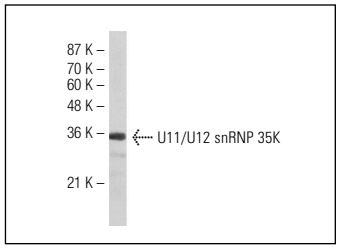
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



U11/U12 snRNP 35K (G-21): sc-102146. Western blot analysis of U11/U12 snRNP 35K expression in mouse brain tissue extract.



U11/U12 snRNP 35K (G-21): sc-102146. Western blot analysis of U11/U12 snRNP 35K expression in Jurkat whole cell lysate.

RESEARCH USE

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