

U11/U12 snRNP 20K (S-14): sc-86936

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 20K (U11/U12 small nuclear ribonucleoprotein 20 kDa protein), also known as ZMAT5 (zinc finger matrin-type protein 5), is a 170 amino acid nuclear protein that contains one C₃H₁-type zinc finger.

REFERENCES

1. Sillekens, P.T., et al. 1989. Molecular cloning of the cDNA for the human U2 snRNA-specific A' protein. *Nucleic Acids Res.* 17: 1893-1906.
2. Crispino, J.D., et al. 1994. Complementation by SR proteins of pre-mRNA splicing reactions depleted of U1 snRNP. *Science* 265: 1866-1869.
3. Blencowe, B.J., et al. 1998. A coactivator of pre-mRNA splicing. *Genes Dev.* 12: 996-1009.

CHROMOSOMAL LOCATION

Genetic locus: ZMAT5 (human) mapping to 22q12.2; Zmat5 (mouse) mapping to 11 A1.

SOURCE

U11/U12 snRNP 20K (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of U11/U12 snRNP 20K of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86936 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-86936 X, 100 µg/0.1 ml.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

U11/U12 snRNP 20K (S-14) is recommended for detection of U11/U12 snRNP 20K of mouse, rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

U11/U12 snRNP 20K (S-14) is also recommended for detection of U11/U12 snRNP 20K in additional species, including equine, canine and bovine.

Suitable for use as control antibody for U11/U12 snRNP 20K siRNA (h): sc-76781, U11/U12 snRNP 20K siRNA (m): sc-154831, U11/U12 snRNP 20K shRNA Plasmid (h): sc-76781-SH, U11/U12 snRNP 20K shRNA Plasmid (m): sc-154831-SH, U11/U12 snRNP 20KshRNA (h) Lentiviral Particles: sc-76781-V and U11/U12 snRNP 20K shRNA (m) Lentiviral Particles: sc-154831-V.

U11/U12 snRNP 20K (S-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

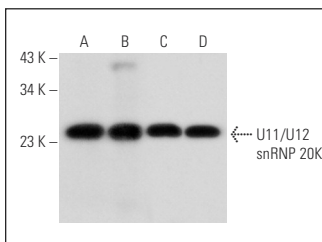
Molecular Weight of U11/U12 snRNP 20K: 20 kDa.

Positive Controls: mouse thymus extract: sc-2406, HEK293 whole cell lysate: sc-45136 or HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



U11/U12 snRNP 20K (S-14): sc-86936. Western blot analysis of U11/U12 snRNP 20K expression in mouse thymus (A) and mouse kidney (B) tissue extracts, HEK293 whole cell lysate (C) and HeLa nuclear extract (D).

PROTOCOLS

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