

MADP-1 (N-13): sc-168525

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. A component of the U11/U12 di-snRNP complex, MADP-1, which is also known as ZCRB1 (zinc finger CCHC-type and RNA binding motif 1), U11/U12 small nuclear ribonucleoprotein 31 kDa, RBM36 or ZCCHC19, is a 217 amino acid nuclear protein that contains one CCHC-type zinc finger and an RRM (RNA recognition motif) domain.

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.
4. Lundin, M., et al. 2000. Gene structure of the U2 snRNP-specific A' protein gene from *Salmo salar*: alternative transcripts observed. *Mar. Biotechnol.* 2: 204-211.
5. Jurica, M.S., et al. 2002. Purification and characterization of native spliceosomes suitable for three-dimensional structural analysis. *RNA* 8: 426-439.
6. 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.
7. Wang, H., et al. 2007. Isolation, expression, and characterization of the human ZCRB1 gene mapped to 12q12. *Genomics* 89: 59-69.
8. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610750. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: ZCRB1 (human) mapping to 12q12; Zcrb1 (mouse) mapping to 15 E3.

SOURCE

MADP-1 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MADP-1 of human origin.

STORAGE

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

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-168525 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-168525 X, 200 µg/0.1 ml.

APPLICATIONS

MADP-1 (N-13) is recommended for detection of MADP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MADP-1 (N-13) is also recommended for detection of MADP-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MADP-1 siRNA (h): sc-95872, MADP-1 siRNA (m): sc-149213, MADP-1 shRNA Plasmid (h): sc-95872-SH, MADP-1 shRNA Plasmid (m): sc-149213-SH, MADP-1 shRNA (h) Lentiviral Particles: sc-95872-V and MADP-1 shRNA (m) Lentiviral Particles: sc-149213-V.

MADP-1 (N-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of MADP-1: 25 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

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