ZCCHC8 (Y-18): sc-244718



The Power to Question

BACKGROUND

Spliceosomes are multi-protein complexes that are composed of snRNPs (small nuclear ribonucleoproteins) and a variety of associated protein factors, all of which work in concert to regulate the splicing of pre-mRNA. ZCCHC8 (zinc finger CCHC domain-containing protein 8) is a 707 amino acid protein that contains one CCHC-type zinc finger domain through which it can bind DNA/RNA and participate in transcriptional activation or repression events within the nucleus. Specifically, ZCCHC8 functions as a component of the spliceosome complex and is thought to be involved in pre-mRNA splicing. Upon DNA damage, ZCCHC8 may be phosphorylated by ATM or ATR. Two isoforms of ZCCHC8 are expressed due to alternative splicing events.

REFERENCES

- 1. Lamond, A.I. 1993. The spliceosome. Bioessays 15: 595-603.
- Urbaneja, M.A., Kane, B.P., Johnson, D.G., Gorelick, R.J., Henderson, L.E. and Casas-Finet, J.R. 1999. Binding properties of the human immunodeficiency virus type 1 nucleocapsid protein p7 to a model RNA: elucidation of the structural determinants for function. J. Mol. Biol. 287: 59-75.
- Nagai, K., Muto, Y., Pomeranz Krummel, D.A., Kambach, C., Ignjatovic, T., Walke, S. and Kuglstatter, A. 2001. Structure and assembly of the spliceosomal snRNPs. Novartis Medal Lecture. Biochem. Soc. Trans. 29: 15-26.
- Jurica, M.S., Licklider, L.J., Gygi, S.R., Grigorieff, N. and Moore, M.J. 2002. Purification and characterization of native spliceosomes suitable for three-dimensional structural analysis. RNA 8: 426-439.
- Nilsen, T.W. 2003. The spliceosome: the most complex macromolecular machine in the cell? Bioessays 25: 1147-1149.
- Turner, I.A., Norman, C.M., Churcher, M.J. and Newman, A.J. 2004. Roles of the U5 snRNP in spliceosome dynamics and catalysis. Biochem. Soc. Trans. 32: 928-931.
- Colland, F., Jacq, X., Trouplin, V., Mougin, C., Groizeleau, C., Hamburger, A., Meil, A., Wojcik, J., Legrain, P. and Gauthier, J.M. 2004. Functional proteomics mapping of a human signaling pathway. Genome Res. 14: 1324-1332.
- 8. Matsuoka, S., Ballif, B.A., Smogorzewska, A., McDonald, E.R., Hurov, K.E., Luo, J., Bakalarski, C.E., Zhao, Z., Solimini, N., Lerenthal, Y., Shiloh, Y., Gygi, S.P. and Elledge, S.J. 2007. ATM and ATR substrate analysis reveals extensive protein networks responsive to DNA damage. Science 316: 1160-1166.

CHROMOSOMAL LOCATION

Genetic locus: ZCCHC8 (human) mapping to 12q24.31; Zcchc8 (mouse) mapping to 5 F.

SOURCE

ZCCHC8 (Y-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZCCHC8 of human origin.

RESEARCH USE

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

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-244718 P, ($100 \mu g$ peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZCCHC8 (Y-18) is recommended for detection of ZCCHC8 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).

ZCCHC8 (Y-18) is also recommended for detection of ZCCHC8 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for ZCCHC8 siRNA (h): sc-96061, ZCCHC8 siRNA (m): sc-155484, ZCCHC8 shRNA Plasmid (h): sc-96061-SH, ZCCHC8 shRNA Plasmid (m): sc-155484-SH, ZCCHC8 shRNA (h) Lentiviral Particles: sc-96061-V and ZCCHC8 shRNA (m) Lentiviral Particles: sc-155484-V.

Molecular Weight of ZCCHC8: 79 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.

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 or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**