

FTSJ2 (2372C6a): sc-81647

BACKGROUND

FTSJ2 (Putative ribosomal RNA methyltransferase 2, rRNA (uridine-2'-O-)-methyltransferase) is a widely expressed nuclear protein that belongs to the RrmJ family of the methyltransferase superfamily. Methyltransferases are a type of transferase enzyme which transfers a methyl group to nucleic bases in DNA or amino acids in protein. FTSJ2 belongs to a group of evolutionarily conserved S-adenosylmethionine-binding proteins. FTSJ2 shares significant sequence homology with FtsJ/RrmJ, an *Escherichia coli* 23S rRNA uridine-2'-O-methyltransferase. It is likely that FTSJ2 also functions as a nucleolar RNA methyltransferase involved in eukaryotic RNA processing and modification. The gene encoding the FTSJ2 protein is located on chromosome 7p22.3 between MAD1L1 and NUDT1. FTSJ2 transcripts are abundant in skeletal muscle, placenta and heart, as well as in cancer cells.

REFERENCES

1. Scott, H.S., Antonarakis, S.E., Lalioti, M.D., Rossier, C., Silver, P.A. and Henry, M.F. 1998. Identification and characterization of two putative human arginine methyltransferases (HRMT1L1 and HRMT1L2). *Genomics* 48: 330-340.
2. Jin, D.Y., Kozak, C.A., Pangilinan, F., Spencer, F., Green, E.D. and Jeang, K.T. 1999. Mitotic checkpoint locus MAD1L1 maps to human chromosome 7p22 and mouse chromosome 5. *Genomics* 55: 363-364.
3. Caldas, T., Binet, E., Boulloc, P., Costa, A., Desgres, J. and Richarme, G. 2000. The FtsJ/RrmJ heat shock protein of *Escherichia coli* is a 23 S Ribosomal RNA methyltransferase. *J. Biol. Chem.* 275: 16414-16419.
4. Ching, Y.P., Zhou, H.J., Yuan, J.G., Qiang, B.Q., Kung Hf, H.F. and Jin, D.Y. 2002. Identification and characterization of FTSJ2, a novel human nucleolar protein homologous to bacterial ribosomal RNA methyltransferase. *Genomics* 79: 2-6.
5. Hager, J., Staker, B.L., Bugl, H. and Jakob, U. 2002. Active site in RrmJ, a heat shock-induced methyltransferase. *J. Biol. Chem.* 277: 41978-41986.
6. Hager, J., Staker, B.L. and Jakob, U. 2004. Substrate binding analysis of the 23S rRNA methyltransferase RrmJ. *J. Bacteriol.* 186: 6634-6642.

CHROMOSOMAL LOCATION

Genetic locus: FTSJ2 (human) mapping to 7p22.3.

SOURCE

FTSJ2 (2372C6a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to the C-terminal region of FTSJ2 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

PROTOCOLS

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

APPLICATIONS

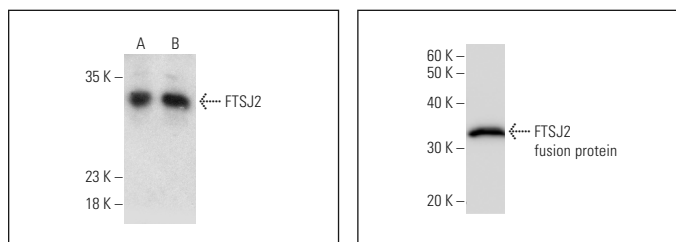
FTSJ2 (2372C6a) is recommended for detection of FTSJ2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for FTSJ2 siRNA (h): sc-89863, FTSJ2 shRNA Plasmid (h): sc-89863-SH and FTSJ2 shRNA (h) Lentiviral Particles: sc-89863-V.

Molecular Weight of FTSJ2: 27 kDa.

Positive Controls: JAR cell lysate: sc-2276 or A-673 cell lysate: sc-2414.

DATA



FTSJ2 (2372C6a): sc-81647. Western blot analysis of FTSJ2 expression in JAR (A) and A-673 (B) whole cell lysates.

FTSJ2 (2372C6a): sc-81647. Western Blot analysis of human recombinant FTSJ2 fusion protein.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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