

splicing factor 1 (H-160): sc-48792

BACKGROUND

Mammalian splicing factor 1 (designated SF1, zinc finger protein 162, ZFM1, CW17R and mammalian branch point binding protein [mBBP]) specifically recognizes the seven-nucleotide branch point sequence located at 3' splice sites and participates in the assembly of early spliceosomal complexes. Splicing factor 1 functions as a transcriptional repressor and may control both proliferation and expression of pro-inflammatory gene products in smooth muscle cells. In addition, cytokine-induced downregulation of splicing factor 1 expression may contribute to the pathogenesis of hyperproliferative inflammatory diseases. The structure of splicing factor 1 contains a nuclear transport domain, a metal binding motif and glutamine- and proline-rich regions. Human splicing factor 1 also exists as several different isoforms, H1-isoform and Bo-isoform, produced by alternative splicing events. The human splicing factor 1 gene is located on chromosome 11 close to the gene encoding Menin, the gene responsible for multiple endocrine neoplasia-type 1 (MEN1).

REFERENCES

1. Toda, T., Iida, A., Miwa, T., Nakamura, Y. and Imai, T. 1994. Isolation and characterization of a novel gene encoding nuclear protein at a locus (D11S636) tightly linked to multiple endocrine neoplasia type 1 (MEN1). *Hum. Mol. Genet.* 3: 465-470.
2. Kramer, A., Quentin, M. and Mulhauser, F. 1998. Diverse modes of alternative splicing of human splicing factor SF1 deduced from the exon-intron structure of the gene. *Gene* 211: 29-37.
3. Peled-Zehavi, H., Berglund, J.A., Rosbash, M. and Frankel, A.D. 2001. Recognition of RNA branch point sequences by the KH domain of splicing factor 1 (mammalian branch point binding protein) in a splicing factor complex. *Mol. Cell Biol.* 21: 5232-5241.
4. Liu, Z., Luyten, I., Bottomley, M.J., Messias, A.C., Houngrinou-Molango, S., Sprangers, R., Zanier, K., Kramer, A. and Sattler, M. 2001. Structural basis for recognition of the intron branch site RNA by splicing factor 1. *Science* 294: 1098-1102.

CHROMOSOMAL LOCATION

Genetic locus: SF1 (human) mapping to 11q13.1; Sf1 (mouse) mapping to 19 A.

SOURCE

splicing factor 1 (H-160) is a rabbit polyclonal antibody raised against amino acids 1-160 mapping at the N-terminus of splicing factor 1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-48792 X, 200 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.

APPLICATIONS

splicing factor 1 (H-160) is recommended for detection of splicing factor 1 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).

splicing factor 1 (H-160) is also recommended for detection of splicing factor 1 in additional species, including canine, bovine and porcine.

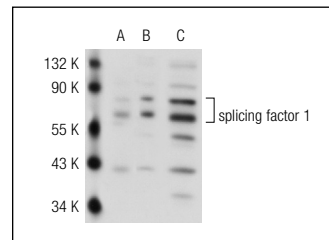
Suitable for use as control antibody for splicing factor 1 siRNA (h): sc-44115, splicing factor 1 siRNA (m): sc-60009, splicing factor 1 shRNA Plasmid (h): sc-44115-SH, splicing factor 1 shRNA Plasmid (m): sc-60009-SH, splicing factor 1 shRNA (h) Lentiviral Particles: sc-44115-V and splicing factor 1 shRNA (m) Lentiviral Particles: sc-60009-V.

splicing factor 1 (H-160) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

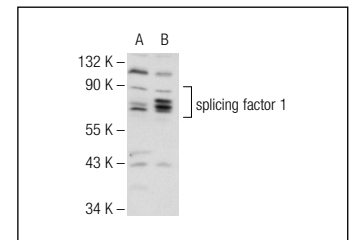
Molecular Weight of splicing factor 1: 70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or splicing factor 1 (h): 293T Lysate: sc-115163.

DATA



splicing factor 1 (H-160): sc-48792. Western blot analysis of splicing factor 1 expression in non-transfected 293T: sc-117752 (A), human splicing factor 1 transfected 293T: sc-115163 (B) and HeLa (C) whole cell lysates.



splicing factor 1 (H-160): sc-48792. Western blot analysis of splicing factor 1 expression in non-transfected 293T: sc-117752 (A), and human splicing factor 1 transfected 293T: sc-117793 (B) whole cell lysates.

RESEARCH USE

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



Try **splicing factor 1 (H-9): sc-398881** or **splicing factor 1 (E-9): sc-365269**, our highly recommended monoclonal alternatives to splicing factor 1 (H-160).