

SSRP1 (H-300): sc-25382

BACKGROUND

Expression of protein-coding genes requires the association of specific transcription factors, RNA polymerase and various accessory factors. These accessory factors are distinguished as either histone acetyltransferases or ATP-dependent chromatin-remodeling enzymes, which include FACT (for facilitates chromatin transcription), and they facilitate transcription initiation on DNA packaged into chromatin. FACT is a chromatin-specific elongation factor required for transcription of chromatin templates, and it specifically interacts with nucleosomes and histone H2A/H2B dimers to promote nucleosome disassembly upon transcription. FACT represents a complex between SPT16, a homolog of the *Saccharomyces cerevisiae* Spt16/Cdc68 protein, and the high-mobility group (HMG)-1-like protein structure-specific recognition protein-1 (SSRP-1). Similar to other HMG domain containing proteins, which are characterized by their ability to bend target DNAs, SSRP1 and the murine ortholog T160 physically interact with serum response factors (SRF) and function as a positive co-regulatory proteins involved in modulating SRF-dependent gene expression.

REFERENCES

1. Felsenfeld, G. 1992. Chromatin as an essential part of the transcriptional mechanism. *Nature* 355: 219-224.
2. Wittmeyer, J., et al. 1997. The *Saccharomyces cerevisiae* DNA polymerase α catalytic subunit interacts with Cdc68/Spt16 and with Pob3, a protein similar to an HMG1-like protein. *Mol. Cell. Biol.* 17: 4178-4190.
3. Shilatifard, A. 1998. Factors regulating the transcriptional elongation activity of RNA polymerase II. *FASEB J.* 12: 1437-1446.
4. Orphanides, G., et al. 1998. FACT, a factor that facilitates transcript elongation through nucleosomes. *Cell* 92: 105-116.
5. LeRoy, G., et al. 1998. Requirement of RSF and FACT for transcription of chromatin templates *in vitro*. *Science* 282: 1900-1904.
6. Dyer, M.A., et al. 1998. The HMG domain protein SSRP1/PREIIBF is involved in activation of the human embryonic-like globin gene. *Mol. Cell. Biol.* 18: 2617-2628.

CHROMOSOMAL LOCATION

Genetic locus: SSRP1 (human) mapping to 11q12.1; Ssrp1 (mouse) mapping to 2 D.

SOURCE

SSRP1 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 of SSRP1 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

SSRP1 (H-300) is recommended for detection of SSRP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

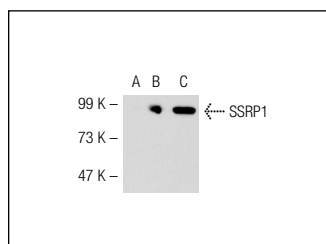
SSRP1 (H-300) is also recommended for detection of SSRP1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SSRP1 siRNA (h): sc-37877, SSRP1 siRNA (m): sc-37878, SSRP1 shRNA Plasmid (h): sc-37877-SH, SSRP1 shRNA Plasmid (m): sc-37878-SH, SSRP1 shRNA (h) Lentiviral Particles: sc-37877-V and SSRP1 shRNA (m) Lentiviral Particles: sc-37878-V.

Molecular Weight of SSRP1: 81 kDa.

Positive Controls: SSRP1 (m): 293T Lysate: sc-127593, HeLa whole cell lysate: sc-2200 or HEL 92.1.7 nuclear extract: sc-2270.

DATA



SSRP1 (H-300): sc-25382. Western blot analysis of SSRP1 expression in non-transfected 293T: sc-117752 (A), mouse SSRP1 transfected 293T: sc-127593 (B) and HeLa (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Vernimmen, D., et al. 2007. Long-range chromosomal interactions regulate the timing of the transition between poised and active gene expression. *EMBO J.* 26: 2041-2051.
2. Zhang, Y., et al. 2008. Dynamic protein associations define two phases of IL-1 β transcriptional activation. *J. Immunol.* 181: 503-512.
3. Birch, J.L., et al. 2009. FACT facilitates chromatin transcription by RNA polymerases I and III. *EMBO J.* 28: 854-865.

RESEARCH USE

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


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Try **SSRP1 (D-7): sc-74536** or **SSRP1 (3E4): sc-56782**, our highly recommended monoclonal alternatives to SSRP1 (H-300).