

SSX (N-18): sc-8816

BACKGROUND

The transcriptional coactivator SYT (synovial translocation protein) contains a conserved amino terminal SNH domain and a carboxy terminal QPGY domain, which is a functioning transcriptional activating sequence. Synovial sarcoma translocation (SSX) proteins, including SSX1-5, are transcriptional repressors that contain a repressor domain in their carboxy termini. SSX proteins are localized to the nucleus and expressed in testis and several types of cancers and are, therefore, classified as C/T (cancer/testis) antigens. The t(x;18) translocation results in the fusion of the amino terminus of SYT to the carboxy terminus of either SSX1 or SSX2; both fusions result in the production of transcriptional activators. SYT-SSX chimeras are detected in most synovial sarcomas. Synovial sarcomas are responsible for up to 10% of soft tissue sarcomas and are histologically characterized as either biphasic or monophasic. Genetic analysis indicates that biphasic synovial sarcomas contain SYT-SSX1 fusions, whereas SYT-SSX2 fusions are found in monophasic synovial sarcomas, providing additional distinguishing characterization of these subtypes.

REFERENCES

- Clark, J., et al. 1994. Identification of novel genes, SYT and SSX, involved in the t(X;18)(p11.2;q11.2) translocation found in human synovial sarcoma. *Nat. Genet.* 7: 502-508.
- Crew, A.J., et al. 1995. Fusion of SYT to two genes, SSX1 and SSX2, encoding proteins with homology to the Kruppel-associated box in human synovial sarcoma. *EMBO J.* 14: 2333-2340.
- Gure, A.O., et al. 1997. SSX: a multigene family with several members transcribed in normal testis and human cancer. *Int. J. Cancer* 72: 965-971.
- dos Santos, N.R., et al. 1997. Nuclear localization of SYT, SSX and the synovial sarcoma-associated SYT-SSX fusion proteins. *Hum. Mol. Genet.* 6: 1549-1558.
- Tureci, O., et al. 1998. Expression of SSX genes in human tumors. *Int. J. Cancer* 77: 19-23.

SOURCE

SSX (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SSX1 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-8816 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-8816 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SSX (N-18) is recommended for detection of SSX 1-4, 6 and 8, and to a lesser extent, SSX 7, 9 and 5 of 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).

SSX (N-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SSX: 22 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

SELECT PRODUCT CITATIONS

- Cronwright, G., et al. 2005. Cancer/testis antigen expression in human mesenchymal stem cells: down-regulation of SSX impairs cell migration and matrix metalloproteinase 2 expression. *Cancer Res.* 65: 2207-2215.
- Condomines, M., et al. 2007. Cancer/testis genes in multiple myeloma: expression patterns and prognosis value determined by microarray analysis. *J. Immunol.* 178: 3307-3315.
- He, R., et al. 2007. Immunostaining for SYT protein discriminates synovial sarcoma from other soft tissue tumors: analysis of 146 cases. *Mod. Pathol.* 20: 522-528.
- Chen, Y.C., et al. 2010. The inhibitory effect of superparamagnetic iron oxide nanoparticle (Ferucarbotran) on osteogenic differentiation and its signaling mechanism in human mesenchymal stem cells. *Toxicol. Appl. Pharmacol.* 245: 272-279.

RESEARCH USE

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


 MONOS
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Try **SSX (C-7): sc-166595** or **SSX (C-9): sc-137073**, our highly recommended monoclonal alternatives to SSX (N-18).