SSX (N-16): sc-8818



The Power to Question

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, therefore, they are 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 issue 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., Rocques, P.J., Crew, A.J., Gill, S., Shipley, J., Chan, A.M., Gusterson, B.A. and Cooper, C.S. 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., Clark, J., Fisher, C., Gill, S., Grimer, R., Chand, A., Shipley, J., Gusterson, B.A. and Cooper, C.S. 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., Tureci, O., Sahin, U., Tsang, S., Scanlan, M.J., Jager, E., Knuth, A., Pfreundschuh, M., Old, L.J. and Chen, Y.T. 1997. SSX: a multigene amily with several members transcribed in normal testis and human cancer. Int. J. Cancer 72: 965-971.
- dos Santos, N.R., de Bruijn, D.R., Balemans, M., Janssen, B., Gartner, F., Lopes, J.M., de Leeuw, B. and Geurts van Kessel, A. 1997. Nuclear localization of SYT, SSX and the synovial sarcoma-associated SYT-SSX fusion proteins. Hum. Mol. Genet. 6: 1549-1558.
- Tureci, O., Chen, Y.T., Sahin, U., Gure, A.O., Zwick, C., Villena, C., Tsang, S., Seitz, G., Old, L.J. and Pfreundschuh, M. 1998. Expression of SSX genes in human tumors. Int. J. Cancer 77: 19-23.
- Kawai, A., Woodruff, J., Healey, J.H., Brennan, M.F., Antonescu, C.R. and Ladanyi, M. 1998. SYT-SSX gene fusion as a determinant of morphology and prognosis in synovial sarcoma. N. Engl. J. Med. 338: 153-160.
- Nilsson, G., Skytting, B., Xie, Y., Brodin, B., Perfekt, R., Mandahl, N., Lundeberg, J., Uhlen, M. and Larsson, O. 1999. The SYT-SSX1 variant of synovial sarcoma is associated with a high rate of tumor cell proliferation and poor clinical outcome. Cancer Res. 59: 3180-3184.

SOURCE

SSX (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SSX2 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-8818 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-8818 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SSX (N-16) is recommended for detection of SSX2, SSX2B, SSX3, SSX5, SSX7, SSX9 and, to a lesser extent, SSX4 of 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).

SSX (N-16) 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.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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



Try **SSX (C-7)**: sc-166595 or **SSX (C-9)**: sc-137073, our highly recommended monoclonal alternatives to SSX (N-16).

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