SANTA CRUZ BIOTECHNOLOGY, INC.

Evi-1 (h2): 293T Lysate: sc-177201

BACKGROUND

The Evi-1 proto-oncogene contains two zinc finger domains, the second of which is essential for transactivation of the c-Fos promoter and for AP-1 activation. The first zinc finger domain binds to Smad3, suppressing its activity and inhibiting TGFβ signaling. The t(3;21) (q26;q22) chromosomal translocation produces a chimeric transcription factor, AML-1/Evi-1, that appears to suppress the transactivation of AML-1, which is a stimulator of myeloid cell differentiation. Inappropriate Evi-1 gene expression in hemato-poietic cells has been shown to be associated with acute myelogenous leukemia (AML) and myelodysplastic syndromes.

REFERENCES

1. Kreider, B.L., et al. 1993. Loss of erythropoietin responsiveness in erythroid progenitors due to expression of the Evi-1 myeloid-transforming gene. Proc. Natl. Acad. Sci. USA 90: 6454-6458.
2. Tanaka, T., et al. 1994. Evi-1 raises AP-1 activity and stimulates c-fos promoter transactivation with dependence on the second zinc finger domain. J. Biol. Chem. 269: 24020-24026.
3. Tanaka, T., et al. 1995. Dual functions of the AML1/Evi-1 chimeric protein in the mechanism of leukemogenesis in t(3;21) leukemias. Mol. Cell. Biol. 15: 2383-2392.
4. Ogawa, S., et al. 1996. Abnormal expression of Evi-1 gene in human leukemias. Hum. Cell 9: 323-332.
5. Kurokawa, M., et al. 1998. The t(3;21) fusion product, AML1/Evi-1, interacts with Smad3 and blocks transforming growth factor-β-mediated growth inhibition of myeloid cells. Blood 92: 4003-4012.
6. Kurokawa, M., et al. 1998. The oncoprotein Evi-1 represses TGF-β signalling by inhibiting Smad3. Nature 394: 92-96.

CHROMOSOMAL LOCATION

Genetic locus: MECOM (human) mapping to 3q26.2.

PRODUCT

Evi-1 (h2): 293T Lysate represents a lysate of human Evi-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Evi-1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Evi-1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Evi-1 (2331C1a1): sc-130025 is recommended as a positive control antibody for Western Blot analysis of enhanced human Evi-1 expression in Evi-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

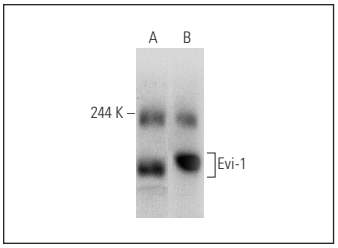
STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

DATA



Evi-1 (2331C1a1): sc-130025. Western blot analysis of Evi-1 expression in non-transfected: sc-117752 (**A**) and human Evi-1 transfected: sc-177201 (**B**) 293T whole cell lysates.

PROTOCOLS

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