SANTA CRUZ BIOTECHNOLOGY, INC.

Evi-1 (2331C1a1): sc-130025

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

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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 AML-1/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, AML-1/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 TGFβ signalling by inhibiting Smad3. Nature 394: 92-96.
7. Mead, P.E., et al. 2005 Evi-1 expression in *Xenopus*. Gene Expr. Patterns 5: 601-608.
8. Takeshita, M., et al. 2008. AML-1-Evi-1 specifically transforms hematopoietic stem cells through fusion of the entire Evi-1 sequence to AML-1. Leukemia 22: 1241-1249.
9. Sato, T., et al. 2008. Evi-1 promotes para-aortic splanchnopleural hematopoiesis through upregulation of GATA-2 and repression of TGFβ signaling. Cancer Sci. 99: 1407-1413.

CHROMOSOMAL LOCATION

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

SOURCE

Evi-1 (2331C1a1) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of Evi-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

APPLICATIONS

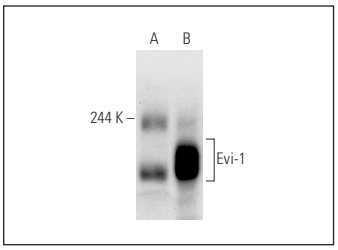
Evi-1 (2331C1a1) is recommended for detection of Evi-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Evi-1 siRNA (h): sc-37873, Evi-1 shRNA Plasmid (h): sc-37873-SH and Evi-1 shRNA (h) Lentiviral Particles: sc-37873-V.

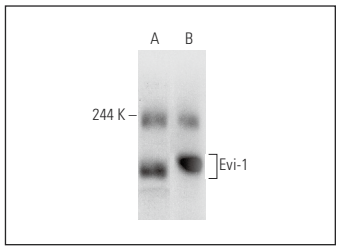
Molecular Weight of Evi-1: 145 kDa.

Positive Controls: Evi-1 (h): 293T Lysate: sc-177200, CCRF-CEM cell lysate: sc-2225 or Hep G2 cell lysate: sc-2227.

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-177200 (**B**) 293T whole cell lysates.



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.

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 for detailed protocols and support products.