

EVI2B (M-150): sc-292697

BACKGROUND

EVI2B (ecotropic viral integration site 2B protein homolog) is a 448 amino acid protein which functions in the differentiation of melanocytes and keratinocytes. Lying within an intron of the Neurofibromin gene, the gene encoding EVI2B is transcribed from the telomere toward the centromere, which is opposite the transcription direction of the Neurofibromin gene. EVI2B is a single-pass transmembrane protein containing an extracellular domain with four glycosylation sites, a N-terminal signal peptide, a cytoplasmic hydrophilic domain and a hydrophobic transmembrane domain. Due to evidence suggesting that gene encoding the mouse homolog lies within a viral integration site that has been identified in retrovirus-induced myeloid tumors, the gene encoding EVI2B may function as an oncogene in these tumor types. With expression in peripheral blood mononuclear cells, fibroblasts, bone marrow and EBV-transformed lymphoblastoid cell lines, EVI2B is implicated in leukemogenesis.

REFERENCES

1. Cawthon, R.M., Andersen, L.B., Buchberg, A.M., Xu, G.F., O'Connell, P., Viskochil, D., Weiss, R.B., Wallace, M.R., Marchuk, D.A. and Culver, M. 1991. cDNA sequence and genomic structure of EVI2B, a gene lying within an intron of the neurofibromatosis type 1 gene. *Genomics* 9: 446-460.
2. Viskochil, D., Cawthon, R., O'Connell, P., Xu, G.F., Stevens, J., Culver, M., Carey, J. and White, R. 1991. The gene encoding the oligodendrocyte-myelin glycoprotein is embedded within the neurofibromatosis type 1 gene. *Mol. Cell. Biol.* 11: 906-912.
3. Rasmussen, S.A., Ho, V.T., Colman, S.D., Abernathy, C.R. and Wallace, M.R. 1996. A multiplex-PCR test for EVI2A and EVI2B polymorphisms within the human NF1 gene. *Mamm. Genome* 7: 233-234.
4. Kaufmann, D., Gruener, S., Braun, F., Stark, M., Griesser, J., Hoffmeyer, S. and Bartelt, B. 1999. EVI2B, a gene lying in an intron of the neurofibromatosis type 1 (NF1) gene, is as the NF1 gene involved in differentiation of melanocytes and keratinocytes and is overexpressed in cells derived from NF1 neurofibromas. *DNA Cell Biol.* 18: 345-356.
5. Aalto, Y., El-Rifa, W., Vilpo, L., Ollila, J., Nagy, B., Vihinen, M., Vilpo, J. and Knuutila, S. 2001. Distinct gene expression profiling in chronic lymphocytic leukemia with 11q23 deletion. *Leukemia* 15: 1721-1728.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 158381. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Jenne, D.E., Tinschert, S., Dorschner, M.O., Hameister, H., Stephens, K. and Kehrer-Sawatzki, H. 2003. Complete physical map and gene content of the human NF1 tumor suppressor region in human and mouse. *Genes Chromosomes Cancer* 37: 111-120.

CHROMOSOMAL LOCATION

Genetic locus: Evi2b (mouse) mapping to 11 B5.

SOURCE

EVI2B (M-150) is a rabbit polyclonal antibody raised against amino acids 28-177 mapping near the N-terminus of EVI2B of mouse origin.

PRODUCT

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

APPLICATIONS

EVI2B (M-150) is recommended for detection of EVI2B of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for EVI2B siRNA (m): sc-144963, EVI2B shRNA Plasmid (m): sc-144963-SH and EVI2B shRNA (m) Lentiviral Particles: sc-144963-V.

Molecular Weight of EVI2B: 49 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.