

## EVI2B (W-14): sc-131930

### 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, an N-terminal signal peptide, a cytoplasmic hydrophilic domain and a hydrophobic transmembrane domain. Due to evidence suggesting that the 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., et al. 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., et al. 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., et al. 1996. A multiplex-PCR test for EVI2A and EVI2B polymorphisms within the human NF1 gene. *Mamm. Genome* 7: 233-234.
4. Kaufmann, D., et al. 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., et al. 2001. Distinct gene expression profiling in chronic lymphocytic leukemia with 11q23 deletion. *Leukemia* 15: 1721-1728.
6. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 158381. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Jenne, D.E., et al. 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 (human) mapping to 17q11.2; Evi2b (mouse) mapping to 11 B5.

### SOURCE

EVI2B (W-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EVI2B of human origin.

### STORAGE

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

### PRODUCT

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

Blocking peptide available for competition studies, sc-131930 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

EVI2B (W-14) is recommended for detection of EVI2B of mouse, rat and 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); non cross-reactive with other EVI family members.

EVI2B (W-14) is also recommended for detection of EVI2B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for EVI2B siRNA (h): sc-93673, EVI2B siRNA (m): sc-144963, EVI2B shRNA Plasmid (h): sc-93673-SH, EVI2B shRNA Plasmid (m): sc-144963-SH, EVI2B shRNA (h) Lentiviral Particles: sc-93673-V and EVI2B shRNA (m) Lentiviral Particles: sc-144963-V.

Molecular Weight of EVI2B: 49 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

### 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.