# SANTA CRUZ BIOTECHNOLOGY, INC.

# VEZF1 (ZNF5J141): sc-81134



### BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. VEZF1 (vascular endothelial zinc finger 1), also known as ZNF161 or DB1, is a nuclear localizing zinc-finger protein belonging to the Krüppel  $C_2H_2$ -type zinc-finger family. Expressed throughout the body with the highest level of expression found in the kidneys and skeletal muscle, VEZF1 is an endothelial transcription factor that regulates ET-1 (endothelin-1) promoter expression. Through its interaction with the CT/GC-rich region of the ET-1 promoter, VEZF1 helps to regulate proper assembly of the cardiovascular system during early development by activating the expression of various genes found in the vascular endothelium.

### REFERENCES

- Koyano-Nakagawa, N., et al. 1994. Molecular cloning of a novel human cDNA encoding a zinc finger protein that binds to the interleukin-3 promoter. Mol. Cell. Biol. 14: 5099-5107.
- Lebowitz, P.F. and Prendergast, G.C. 1999. Functional interaction between RhoB and the transcription factor DB1. Cell Adhes. Commun. 6: 277-287.
- Xiong, J.W., et al. 1999. Vezf1: a Zn finger transcription factor restricted to endothelial cells and their precursors. Dev. Biol. 206: 123-141.
- Aitsebaomo, J., et al. 2001. Vezf1/DB1 is an endothelial cell-specific transcription factor that regulates expression of the endothelin-1 promoter. J. Biol. Chem. 276: 39197-39205.
- Lee, K.H., et al. 2004. Human zinc finger protein 161, a novel transcriptional activator of the dopamine transporter. Biochem. Biophys. Res. Commun. 313: 969-976.
- Aitsebaomo, J., et al. 2004. p68RacGAP is a novel GTPase-activating protein that interacts with vascular endothelial zinc finger-1 and modulates endothelial cell capillary formation. J. Biol. Chem. 279: 17963-17972.

#### **CHROMOSOMAL LOCATION**

Genetic locus: VEZF1 (human) mapping to 17q22; Vezf1 (mouse) mapping to 11 C.

# SOURCE

VEZF1 (ZNF5J141) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of VEZF1 of human origin.

## PRODUCT

Each vial contains 100  $\mu g$   $lgG_1$  in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

## PROTOCOLS

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

## APPLICATIONS

VEZF1 (ZNF5J141) is recommended for detection of VEZF1 of mouse, rat and human 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for VEZF1 siRNA (h): sc-94046, VEZF1 siRNA (m): sc-155100, VEZF1 shRNA Plasmid (h): sc-94046-SH, VEZF1 shRNA Plasmid (m): sc-155100-SH, VEZF1 shRNA (h) Lentiviral Particles: sc-94046-V and VEZF1 shRNA (m) Lentiviral Particles: sc-155100-V.

Molecular Weight of VEZF1: 56 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or F2408 whole celll lysate.

#### DATA



VEZF1 (ZNF5J141): sc-81134 Western Blot analysis of human recombinant VEZF1 fusion protein.

## SELECT PRODUCT CITATIONS

 Shows, K.H. and Shiang, R. 2008. Regulation of the mouse Treacher Collins syndrome homolog (Tcof1) promoter through differential repression of constitutive expression. DNA Cell Biol. 27: 589-600.

#### **STORAGE**

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/ thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

#### **RESEARCH USE**

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