

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 C₂H₂-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

1. 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.
2. Lebowitz, P.F. and Prendergast, G.C. 1999. Functional interaction between RhoB and the transcription factor DB1. *Cell Adhes. Commun.* 6: 277-287.
3. Xiong, J.W., et al. 1999. Vezf1: A Zn finger transcription factor restricted to endothelial cells and their precursors. *Dev. Biol.* 206: 123-141.
4. 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.
5. 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.
6. 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 µg IgG₁ 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

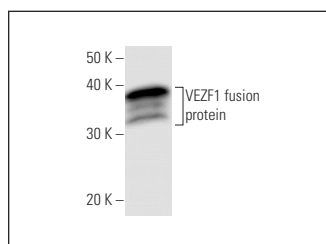
VEZF1 (ZNF5J141) is recommended for detection of VEZF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution 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 cell lysate.

DATA



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

SELECT PRODUCT CITATIONS

1. 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.