

# VEZF1 (D-8): sc-365566

## 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<sub>2</sub>H<sub>2</sub>-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

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2. Lebowitz, P.F., et al. 1998. Functional interaction between Rho B 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.
7. Miyashita, H., et al. 2004. Vascular endothelial zinc finger 1 is involved in the regulation of angiogenesis: possible contribution of stathmin/OP18 as a downstream target gene. *Arterioscler. Thromb. Vasc. Biol.* 24: 878-884.

## CHROMOSOMAL LOCATION

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

## SOURCE

VEZF1 (D-8) is a mouse monoclonal antibody raised against amino acids 351-516 mapping at the C-terminus of VEZF1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-365566 X, 200 µg/0.1 ml.

## APPLICATIONS

VEZF1 (D-8) is recommended for detection of VEZF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

VEZF1 (D-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

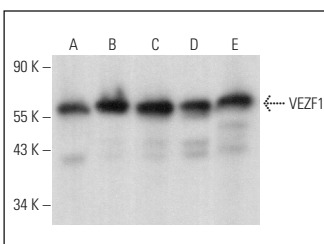
Molecular Weight of VEZF1: 56 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

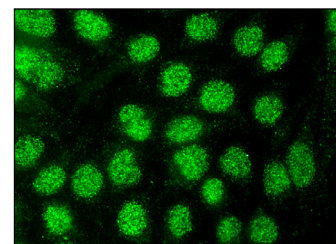
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



VEZF1 (D-8): sc-365566. Western blot analysis of VEZF1 expression in 3T3-L1 (A), HeLa (B), Hep G2 (C), K-562 (D) and KNRK (E) whole cell lysates.



VEZF1 (D-8): sc-365566. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

## 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.