SANTA CRUZ BIOTECHNOLOGY, INC.

Vgl-1 (D-13): sc-132868

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The transcriptional enhancer factor-1 (TEF-1) family of transcription factors regulate tissue-specific gene expression in muscle and placenta. The mechanism whereby TEF-1 confers tissue specificity depends largely on the interaction of TEF-1 with tissue-specific cofactors. Transcription cofactor vestigial-like protein 1 (Vgl-1), also known as TONDU or TDU, is a TEF-1 cofactor that is critical for controlling tissue-specific gene activation of TEF-1. Vgl-1 interacts with TEF-1 through a conserved sequence known as the TONDU (TDU) motif. While Vgl-1 is expressed almost exclusively in placenta of adult human tissues, it is expressed more widely in human embryo tissues, including kidney, lung, skeletal muscle, heart and placenta. Vgl-1 is 258 amino acids in length and localizes to the nucleus.

REFERENCES

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2. Maeda, T., Chapman, D.L. and Stewart, A.F. 2002. Mammalian vestigial-like 2, a cofactor of TEF-1 and MEF-2 transcription factors that promotes skeletal muscle differentiation. J. Biol. Chem. 277: 48889-48898.
3. Mielcarek, M., Günther, S., Krüger, M. and Braun, T. 2002. VITO-1, a novel vestigial related protein is predominantly expressed in the skeletal muscle lineage. Mech. Dev. 119: S269-S274.
4. Karasseva, N., Tsika, G., Ji, J., Zhang, A., Mao, X. and Tsika, R. 2003. Transcription enhancer factor 1 binds multiple muscle MEF-2 and A/T-rich elements during fast-to-slow skeletal muscle fiber type transitions. Mol. Cell. Biol. 23: 5143-5164.
5. Chen, H.H., Mullett, S.J. and Stewart, A.F. 2004. Vgl-4, a novel member of the vestigial-like family of transcription cofactors, regulates α1-adrenergic activation of gene expression in cardiac myocytes. J. Biol. Chem. 279: 30800-30806.
6. Mahoney, W.M., Hong, J.H., Yaffe, M.B. and Farrance, I.K. 2005. The transcriptional co-activator TAZ interacts differentially with transcriptional enhancer factor-1 (TEF-1) family members. Biochem. J. 388: 217-225.
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STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Vgll1 (mouse) mapping to X A5.

SOURCE

Vgl-1 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Vgl-1 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.

Blocking peptide available for competition studies, sc-132868 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Vgl-1 (D-13) is recommended for detection of Vgl-1 of mouse and rat 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 Vgl-2, Vgl-3 or Vgl-4 .

Suitable for use as control antibody for Vgl-1 siRNA (m): sc-155101, Vgl-1 shRNA Plasmid (m): sc-155101-SH and Vgl-1 shRNA (m) Lentiviral Particles: sc-155101-V.

Molecular Weight of Vgl-1: 29 kDa.

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™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) 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™ Mounting Medium: sc-24941.

RESEARCH USE

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