

Ovo1 (T-14): sc-132766

BACKGROUND

The Ovo family of zinc-finger transcription factors encode evolutionarily conserved genes including those from *Caenorhabditis elegans*, *Drosophila melanogaster*, mouse and human. Members of the Ovo family include Ovo1 and Ovo2. Ovo1 acts as a transcriptional repressor by interacting with key developmental signaling pathways such as Wnt and TGF β /BMP. Specifically, Ovo1 represses c-Myc and Id2 genes and establishes a balance between proliferation and differentiation of progenitor cells. Deletion of Ovo1 in mice leads to germ cell degeneration and defective sperm production in adult males. Ovo1 has also been shown to repress itself as well as Ovo2, which is thought to regulate neural development and vascular angiogenesis during embryogenesis.

REFERENCES

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- Li, B., et al. 2005. Ovo1 regulates meiotic pachytene progression during spermatogenesis by repressing Id2 expression. *Development* 132: 1463-1473.
- Mackay, D.R., et al. 2006. The mouse Ovo2 gene is required for cranial neural tube development. *Dev. Biol.* 291: 38-52.
- Nair, M., et al. 2006. Ovo1 regulates the growth arrest of embryonic epidermal progenitor cells and represses c-Myc transcription. *J. Cell Biol.* 173: 253-264.
- Teng, A., et al. 2007. Strain-dependent perinatal lethality of Ovo1-deficient mice and identification of Ovo2 as a downstream target of Ovo1 in skin epidermis. *Biochim. Biophys. Acta* 1772: 89-95.
- Unezaki, S., et al. 2007. Ovo2/Movo, a homologue of *Drosophila* Ovo, is required for angiogenesis, heart formation and placental development in mice. *Genes Cells* 12: 773-785.
- Nair, M., et al. 2007. Ovo1 represses its own transcription by competing with transcription activator c-Myb and by recruiting histone deacetylase activity. *Nucleic Acids Res.* 35: 1687-1697.

CHROMOSOMAL LOCATION

Genetic locus: OVOL1 (human) mapping to 11q13.1; Ovo1 (mouse) mapping to 19 A.

SOURCE

Ovo1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ovo1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-132766 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ovo1 (T-14) is recommended for detection of Ovo1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with Ovo2.

Ovo1 (T-14) is also recommended for detection of Ovo1 in additional species, including equine and porcine.

Suitable for use as control antibody for Ovo1 siRNA (h): sc-96293, Ovo1 siRNA (m): sc-151947, Ovo1 shRNA Plasmid (h): sc-96293-SH, Ovo1 shRNA Plasmid (m): sc-151947-SH, Ovo1 shRNA (h) Lentiviral Particles: sc-96293-V and Ovo1 shRNA (m) Lentiviral Particles: sc-151947-V.

Molecular Weight (predicted) of Ovo1: 30 kDa.

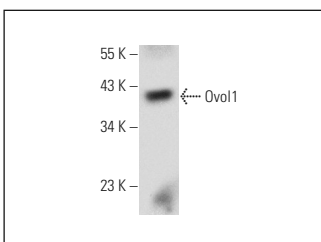
Molecular Weight (observed) of Ovo1: 43 kDa.

Positive Controls: mouse brain extract: sc-2253.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Ovo1 (T-14): sc-132766. Western blot analysis of Ovo1 expression in mouse brain tissue extract.

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.