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 Ovol1 and Ovol2. Ovol1 acts as a transcriptional repressor by interacting with key developmental signaling pathways such as Wnt and TGFβ/BMP. Specifically, Ovol1 represses c-Myc and Id2 genes and establishes a balance between proliferation and differentiation of progenitor cells. Deletion of Ovol1 in mice leads to germ cell degeneration and defective sperm production in adult males. Ovol1 has also been shown to repress itself as well as Ovol2, which is thought to regulate neural development and vascular angiogenesis during embryogenesis.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: OVOL1 (human) mapping to 11q13.1; Ovol1 (mouse) mapping to 19 A.

SOURCE

Ovol1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ovol1 of human 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-132766 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ovol1 (T-14) is recommended for detection of Ovol1 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)], 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 Ovol2.

Ovol1 (T-14) is also recommended for detection of Ovol1 in additional species, including equine and porcine.

Suitable for use as control antibody for Ovol1 siRNA (h): sc-96293, Ovol1 siRNA (m): sc-151947, Ovol1 shRNA Plasmid (h): sc-96293-SH, Ovol1 shRNA Plasmid (m): sc-151947-SH, Ovol1 shRNA (h) Lentiviral Particles: sc-96293-V and Ovol1 shRNA (m) Lentiviral Particles: sc-151947-V.

Molecular Weight (predicted) of Ovol1: 30 kDa.

Molecular Weight (observed) of Ovol1: 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

Ovol1 (T-14): sc-132766. Western blot analysis of Ovol1 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.