

Ovol2 (m): 293T Lysate: sc-127275

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 TGF- β /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

- Li, B., et al. 2002. Ovol2, a mammalian homolog of *Drosophila* Ovo: gene structure, chromosomal mapping, and aberrant expression in blind-sterile mice. *Genomics* 80: 319-325.
- Li, B., et al. 2005. Ovol1 regulates meiotic pachytene progression during spermatogenesis by repressing Id2 expression. *Development* 132: 1463-1473.
- Mackay, D.R., et al. 2006. The mouse Ovol2 gene is required for cranial neural tube development. *Dev. Biol.* 291: 38-52.
- Nair, M., et al. 2006. Ovol1 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 Ovol1-deficient mice and identification of Ovol2 as a downstream target of Ovol1 in skin epidermis. *Biochim. Biophys. Acta* 1772: 89-95.

CHROMOSOMAL LOCATION

Genetic locus: Ovol2 (mouse) mapping to 2 G1.

PRODUCT

Ovol2 (m): 293T Lysate represents a lysate of mouse Ovol2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Ovol2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Ovol2 antibodies. Recommended use: 10-20 μ l per lane.

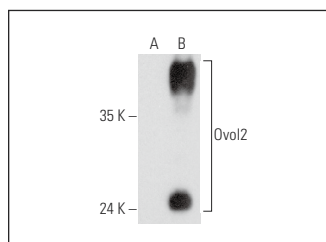
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Ovol2 (E-9): sc-515001 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Ovol2 expression in Ovol2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



Ovol2 (E-9): sc-515001. Western blot analysis of Ovol2 expression in non-transfected: sc-117752 (A) and mouse Ovol2 transfected: sc-127275 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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