



Ovol2 (m3): 293T Lysate: sc-127277

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

1. Li, B., Dai, Q., Li, L., Nair, M., Mackay, D.R. and Dai, X. 2002. Ovol2, a mammalian homolog of *Drosophila* Ovo: gene structure, chromosomal mapping, and aberrant expression in blind-sterile mice. *Genomics* 80: 319-325.
2. Li, B., Nair, M., Mackay, D.R., Bilanchone, V., Hu, M., Fallahi, M., Song, H., Dai, Q., Cohen, P.E. and Dai, X. 2005. Ovol1 regulates meiotic pachytene progression during spermatogenesis by repressing Id2 expression. *Development* 132: 1463-1473.
3. Mackay, D.R., Hu, M., Li, B., Rhéaume, C. and Dai, X. 2006. The mouse Ovol2 gene is required for cranial neural tube development. *Dev. Biol.* 291: 38-52.
4. Nair, M., Teng, A., Bilanchone, V., Agrawal, A., Li, B. and Dai, X. 2006. Ovol1 regulates the growth arrest of embryonic epidermal progenitor cells and represses c-Myc transcription. *J. Cell Biol.* 173: 253-264.
5. Teng, A., Nair, M., Wells, J., Segre, J.A. and Dai, X. 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.
6. Unezaki, S., Horai, R., Sudo, K., Iwakura, Y. and Ito, S. 2007. Ovol2/Movo, a homologue of *Drosophila* ovo, is required for angiogenesis, heart formation and placental development in mice. *Genes Cells* 12: 773-785.
7. Nair, M., Bilanchone, V., Ortt, K., Sinha, S. and Dai, X. 2007. Ovol1 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: Ovol2 (mouse) mapping to 2 G1.

PRODUCT

Ovol2 (m3): 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.

RESEARCH USE

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

APPLICATIONS

Ovol2 (m3): 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.

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.

PROTOCOLS

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