

# Ovol2 (E-9): sc-515001

## 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- $\beta$ /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.

## CHROMOSOMAL LOCATION

Genetic locus: OVOL2 (human) mapping to 20p11.23; Ovol2 (mouse) mapping to 2 G1.

## SOURCE

Ovol2 (E-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 222-237 within an internal region of Ovol2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-515001 X, 200  $\mu$ g/0.1 ml.

Ovol2 (E-9) is available conjugated to agarose (sc-515001 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515001 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515001 PE), fluorescein (sc-515001 FITC), Alexa Fluor® 488 (sc-515001 AF488), Alexa Fluor® 546 (sc-515001 AF546), Alexa Fluor® 594 (sc-515001 AF594) or Alexa Fluor® 647 (sc-515001 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515001 AF680) or Alexa Fluor® 790 (sc-515001 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515001 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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.

## APPLICATIONS

Ovol2 (E-9) is recommended for detection of Ovol2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Suitable for use as control antibody for Ovol2 siRNA (h): sc-76022, Ovol2 siRNA (m): sc-151948, Ovol2 shRNA Plasmid (h): sc-76022-SH, Ovol2 shRNA Plasmid (m): sc-151948-SH, Ovol2 shRNA (h) Lentiviral Particles: sc-76022-V and Ovol2 shRNA (m) Lentiviral Particles: sc-151948-V.

Ovol2 (E-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

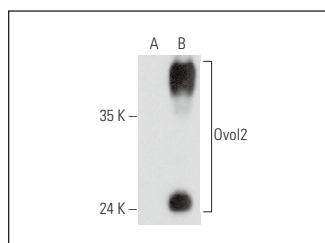
Molecular Weight of Ovol2: 30 kDa.

Positive Controls: Ovol2 (m): 293T Lysate: sc-127275.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## 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.

## SELECT PRODUCT CITATIONS

- Mehdi, S., et al. 2020. LY75 suppression in mesenchymal epithelial ovarian cancer cells generates a stable hybrid EOC cellular phenotype, associated with enhanced tumor initiation, spreading and resistance to treatment in orthotopic xenograft mouse model. *Int. J. Mol. Sci.* 21: 4992.

## RESEARCH USE

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