

# Oviductin (G-7): sc-376300

## BACKGROUND

The mucins are a family of highly glycosylated, secreted proteins with a basic structure consisting of a variable number of tandem repeats (VNTRs). The number of repeats is highly polymorphic and varies among different alleles. The mucin family consists of Mucins 1–4, Mucin 5 (AC and B), Mucins 6–8, Mucins 11–13 and Mucins 15–17. Mucin 9 (Muc9), often referred to as oviduct-specific glycoprotein (Oviductin) or estrogen-dependent oviduct protein, is an oviduct-specific protein. It binds to oocyte zona pellucida *in vivo* and is involved in the fertilization process and early embryonic development. Oviductin localizes to secretory granules and the protein is detected in OE-E6/E7 cell lines. During the human reproductive cycle, Oviductin expression is highest at the time of ovulation.

## REFERENCES

1. Arias, E.B., et al. 1994. Complementary deoxyribonucleic acid cloning and molecular characterization of an estrogen-dependent human oviductal glycoprotein. *Biol. Reprod.* 51: 685-694.
2. Hendrix, E., et al. 2001. Oviductin (Muc9) is expressed in rabbit endocervix. *Endocrinology* 142: 2151.
3. Briton-Jones, C., et al. 2001. Regulation of human Oviductin mRNA expression *in vivo*. *Fertil. Steril.* 75: 942-946.
4. Lok, I.H., et al. 2002. Variable expression of Oviductin mRNA at different stages of human reproductive cycle. *J. Assist. Reprod. Genet.* 19: 569-576.
5. Briton-Jones, C., et al. 2002. Human Oviductin mRNA expression is not maintained in oviduct mucosal cell culture. *Fertil. Steril.* 77: 576-580.
6. Hiyoshi, M., et al. 2002. Oviductin, the oviductal protease that mediates gamete interaction by affecting the vitelline coat in *Bufo japonicus*: its molecular cloning and analyses of expression and posttranslational activation. *Dev. Biol.* 243: 176-184.
7. Briton-Jones, C., et al. 2004. Estradiol regulation of Oviductin/oviduct-specific glycoprotein messenger ribonucleic acid expression in human oviduct mucosal cells *in vitro*. *Fertil. Steril.* 81: 749-756.

## CHROMOSOMAL LOCATION

Genetic locus: OVG1 (human) mapping to 1p13.2.

## SOURCE

Oviductin (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 621-659 near the C-terminus of Oviductin (also designated Mucin 9) of human origin.

## PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376300 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Oviductin (G-7) is recommended for detection of Oviductin of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 Oviductin siRNA (h): sc-45354, Oviductin shRNA Plasmid (h): sc-45354-SH and Oviductin shRNA (h) Lentiviral Particles: sc-45354-V.

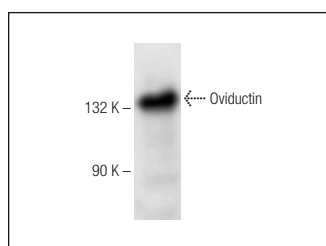
Molecular Weight of Oviductin: 120 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

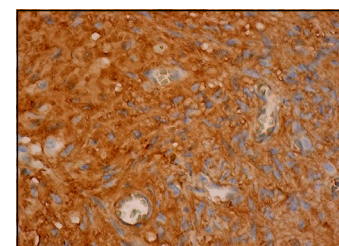
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Oviductin (G-7): sc-376300. Western blot analysis of Oviductin expression in Hep G2 whole cell lysate.



Oviductin (G-7): sc-376300. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic staining of ovarian stroma cells.

## 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.