

# OLFML3 (N-14): sc-243668

## BACKGROUND

OLFML3 (olfactomedin-like protein 3), also known as HNOEL-iso or hOLF44, is a 406 amino acid protein that belongs to the OLFML3 family and contains one olfactomedin-like domain. As a secreted scaffold protein, OLFML3 plays an essential role in dorsoventral patterning during early development by restricting chordin activity on the dorsal side, thus stabilizing axial formation. OLFML3 also facilitates the association between the tolloid proteases and chordin, enhancing chordin degradation. OLFML3 may also be involved in placental and embryonic development, or play a similar role in other physiological processes. Abundantly expressed in placenta, OLFML3 is mainly extracellularly localized around syncytiotrophoblastic cells on term placenta. OLFML3 is also moderately expressed in liver and heart. Three isoforms of OLFML3 are produced by alternative splicing events.

## REFERENCES

- Zeng, L.C., Liu, F., Zhang, X., Zhu, Z.D., Wang, Z.Q., Han, Z.G. and Ma, W.J. 2004. hOLF44, a secreted glycoprotein with distinct expression pattern, belongs to an uncharacterized olfactomedin-like subfamily newly identified by phylogenetic analysis. *FEBS Lett.* 571: 74-80.
- Stelzl, U., Worm, U., Lalowski, M., Haenig, C., Brembeck, F.H., Goehler, H., Stroedicke, M., Zenkner, M., Timm, J., Bock, N., Mintzlaff, S., Abraham, C., Kietzmann, S., Goedde, A., Toksöz, E., Lehrach, H. and Wanker, E.E. 2005. A human protein-protein interaction network: a resource for annotating the proteome. *Cell* 122: 957-968.
- Fautsch, M.P., Vrabel, A.M. and Johnson, D.H. 2006. The identification of myocilin-associated proteins in the human trabecular meshwork. *Exp. Eye Res.* 82: 1046-1052.
- Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610088. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/610088>

## CHROMOSOMAL LOCATION

Genetic locus: OLFML3 (human) mapping to 1p13.2; Olfml3 (mouse) mapping to 3 F2.2.

## SOURCE

OLFML3 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OLFML3 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-243668 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

OLFML3 (N-14) is recommended for detection of OLFML3 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 OLFML1, OLFML2A, OLFML2B.

OLFML3 (N-14) is also recommended for detection of OLFML3 in additional species, including canine and bovine.

Suitable for use as control antibody for OLFML3 siRNA (h): sc-78816, OLFML3 siRNA (m): sc-150198, OLFML3 shRNA Plasmid (h): sc-78816-SH, OLFML3 shRNA Plasmid (m): sc-150198-SH, OLFML3 shRNA (h) Lentiviral Particles: sc-78816-V and OLFML3 shRNA (m) Lentiviral Particles: sc-150198-V.

Molecular Weight of OLFML3 isoform 1: 46 kDa.

Molecular Weight of OLFML3 isoform 2: 44 kDa.

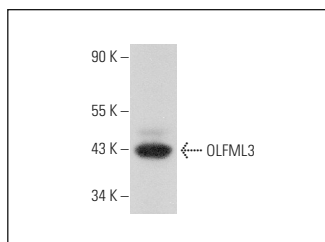
Molecular Weight of OLFML3 isoform 3: 32 kDa.

Positive Controls: Mouse skeletal muscle extract: sc-364250.

## 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



OLFML3 (N-14): sc-243668. Western blot analysis of OLFML3 expression in mouse skeletal muscle tissue extract.

## SELECT PRODUCT CITATIONS

- Torres, S., et al. 2013. Proteome profiling of cancer-associated fibroblasts identifies novel proinflammatory signatures and prognostic markers for colorectal cancer. *Clin. Cancer Res.* 19: 6006-6019.

## RESEARCH USE

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