

# OMP (FL-163): sc-67219

## BACKGROUND

The olfactory marker protein (OMP) has been shown to interact with the brain expressed X-linked genes BEX1 and BEX2. It is expressed in the cytoplasm of olfactory chemosensory neurons in the nasal neuroepithelium. OMP expression is a sign of mature vertebrate olfactory receptor neurons (ORNs). OMP RNA is synthesized in neuronal cell bodies in the epithelium and is then transported into axons and terminals in the olfactory bulb to be translated. OMP may have a modulatory role in the odor detection/signal transduction cascade. In fetal olfactory epithelial cells, OMP is also a potent enhancer of mitosis, and it promotes an increase in uptake of tritiated thymidine in liver. Deletion of the OMP gene causes a compromised ability to respond to odor stimuli and an elevation in behavioral threshold sensitivity.

## REFERENCES

1. Buiakova, O.I., et al. 1996. Olfactory marker protein (OMP) gene deletion causes altered physiological activity of olfactory sensory neurons. Proc. Natl. Acad. Sci. USA 93: 9858-9863.
2. Farbman, A.I., et al. 2000. TGF $\alpha$  and olfactory marker protein enhance mitosis in rat olfactory epithelium *in vivo*. Neuroreport 11: 3655-3658.

## CHROMOSOMAL LOCATION

Genetic locus: OMP (human) mapping to 11q13.5; Omp (mouse) mapping to 7 E2.

## SOURCE

OMP (FL-163) is a rabbit polyclonal antibody raised against amino acids 1-163 representing full length OMP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

OMP (FL-163) is recommended for detection of OMP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

OMP (FL-163) is also recommended for detection of OMP in additional species, including canine.

Suitable for use as control antibody for OMP siRNA (h): sc-61260, OMP siRNA (m): sc-61261, OMP shRNA Plasmid (h): sc-61260-SH, OMP shRNA Plasmid (m): sc-61261-SH, OMP shRNA (h) Lentiviral Particles: sc-61260-V and OMP shRNA (m) Lentiviral Particles: sc-61261-V.

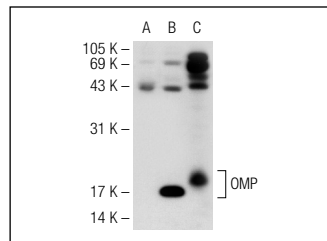
Molecular Weight of OMP: 19 kDa.

Positive Controls: OMP (m): 293T Lysate: sc-127265, mouse brain extract: sc-2253 or mouse embryo extract: sc-364239.

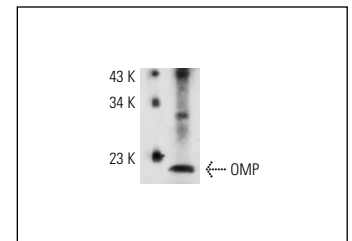
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



OMP (FL-163): sc-67219. Western blot analysis of OMP expression in non-transfected: sc-117752 (A) and mouse OMP transfected: sc-127265 (B) 293T whole cell lysates and mouse brain tissue extract (C).



OMP (FL-163): sc-67219. Western blot analysis of OMP expression in mouse embryo tissue extract.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **OMP (B-6): sc-365818**, our highly recommended monoclonal alternative to OMP (FL-163).