OLFM3 (M-N16): sc-100795

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BIOTECHNOLOGY

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BACKGROUND

OLFM3 (olfactomedin 3), also known as NOE3, is a 478 amino acid protein that interacts with myocilin. Myocilin is an extracellular protein that plays a key role in the actomyosin system and is responsible for controlling intraocular pressure. OLFM3 is a secreted protein that contains an olfactomedin-like (OLF) domain, an approximately 260 amino acid motif commonly found in secreted glycoproteins. OLFM3 localizes to the Golgi apparatus of the cell and is highly expressed in both eye and brain tissue. Mutations in the gene that encodes OLFM3 may cause severe glaucoma, a condition in which increased intraocular pressure within the eyeball causes loss of eye sight.

REFERENCES

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4. Kondo, D., Yet al. 2000. Localization of olfactomedin-related glycoprotein isoform (BMZ) in the Golgi apparatus of glomerular podocytes in rat kidneys. J. Am. Soc. Nephrol. 11: 803-813.

5. Jacobson, N., et al. 2001. Non-secretion of mutant proteins of the glaucoma gene myocilin in cultured trabecular meshwork cells and in aqueous humor. Hum. Mol. Genet. 10: 117-125.

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CHROMOSOMAL LOCATION

Genetic locus: OLFM3 (human) mapping to 1p21.1; Olfm3 (mouse) mapping to 3 F3.

SOURCE

OLFM3 (M-N16) is a mouse monoclonal antibody raised against recombinant OLFM3 of human origin.

PRODUCT

Each vial contains 100 µg IgG$_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

OLFM3 (M-N16) is recommended for detection of OLFM3 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for OLFM3 siRNA (h): sc-78597, OLFM3 siRNA (m): sc-150194, OLFM3 shRNA Plasmid (h): sc-78597-SH, OLFM3 shRNA Plasmid (m): sc-150194-SH, OLFM3 shRNA (h) Lentiviral Particles: sc-78597-V and OLFM3 shRNA (m) Lentiviral Particles: sc-150194-V.

Molecular Weight of OLFM3: 55 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA
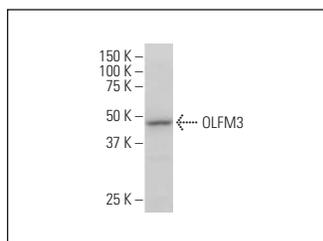
OLFM3 (M-N16): sc-100795. Western blot analysis of OLFM3 expression in NIH/3T3 whole cell lysate.

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 for detailed protocols and support products.