

# OLFML2B (D-12): sc-137656

## BACKGROUND

OLFML2B (olfactomedin-like protein 2B), also known as photomedin-2, is a 750 amino acid secreted protein that contains one olfactomedin-like domain and exists as two alternatively spliced isoforms. OLFML2B can form a homodimer and is known to bind heparin and chondroitin sulfate E. Expressed in adult retina, OLFML2B is O-glycosylated and N-glycosylated during post-translational modification. The gene encoding OLFML2B maps to human chromosome 1, which includes over 3,000 genes and comprises 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

## REFERENCES

1. Eudy, J.D., et al. 1998. Mutation of a gene encoding a protein with extracellular matrix motifs in Usher syndrome type IIa. *Science* 280: 1753-1757.
2. Lau, E.K., et al. 1999. Two novel polymorphic sequences in the glucocerebrosidase gene region enhance mutational screening and founder effect studies of patients with Gaucher disease. *Hum. Genet.* 104: 293-300.
3. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. *Eur. J. Hum. Genet.* 12: 365-371.
4. Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. *Neurobiol. Dis.* 31: 309-315.
5. Yurov, Y.B., et al. 2008. The schizophrenia brain exhibits low-level aneuploidy involving chromosome 1. *Schizophr. Res.* 98: 139-147.
6. Gratacòs, M., et al. 2009. Identification of new putative susceptibility genes for several psychiatric disorders by association analysis of regulatory and non-synonymous SNPs of 306 genes involved in neurotransmission and neurodevelopment. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 150B: 808-816.
7. Balcárková, J., et al. 2009. Gain of chromosome arm 1q in patients in relapse and progression of multiple myeloma. *Cancer Genet. Cytogenet.* 192: 68-72.
8. Yokoi, T., et al. 2009. Analysis of the vitreous membrane in a case of type 1 Stickler syndrome. *Graefes Arch. Clin. Exp. Ophthalmol.* 247: 715-718.
9. Tomarev, S.I., et al. 2009. Olfactomedin domain-containing proteins: possible mechanisms of action and functions in normal development and pathology. *Mol. Neurobiol.* 40: 122-138.

## CHROMOSOMAL LOCATION

Genetic locus: OLFML2B (human) mapping to 1q23.3; Olfml2b (mouse) mapping to 1 H3.

## SOURCE

OLFML2B (D-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of OLFML2B of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137656 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

OLFML2B (D-12) is recommended for detection of OLFML2B isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with OLFML2A.

OLFML2B (D-12) is also recommended for detection of OLFML2B isoforms 1 and 2 in additional species, including canine and avian.

Suitable for use as control antibody for OLFML2B siRNA (h): sc-78594, OLFML2B siRNA (m): sc-150197, OLFML2B shRNA Plasmid (h): sc-78594-SH, OLFML2B shRNA Plasmid (m): sc-150197-SH, OLFML2B shRNA (h) Lentiviral Particles: sc-78594-V and OLFML2B shRNA (m) Lentiviral Particles: sc-150197-V.

Molecular Weight of OLFML2B isoforms 1/2: 84/28 kDa.

## 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) 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.

## 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.