

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse OMgp in direct ELISAs and Western blots. In these formats, approximately 35% cross-reactivity with recombinant human OMgp is observed.                                                                                                                        |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse OMgp (R&D Systems, Catalog # 1674-MG)<br>Ile25-Ser420<br>Accession # Q63912                                                                                                                                           |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

Oligodendrocyte myelin glycoprotein (OMgp or OMG), Nogo, and myelin-associated glycoprotein (MAG), are three myelin-derived axon outgrowth inhibitors that collapse axonal growth cones and inhibit neurite outgrowth (1 - 3). These three structurally distinct proteins contribute to the myelin-associated inhibitory activity that prevents axonal regeneration after injury of the adult central nervous system (CNS). Mouse OMgp cDNA encodes a 440 amino acid (aa) residue glycosylphosphatidylinositol (GPI)-anchored protein that has a 24 aa signal peptide, eight leucine-rich repeats (LRR) followed by five serine/threonine-rich repeats (4). OMgp has multiple potential N-glycosylation and O-glycosylation sites. Mouse and human OMgp share approximately 88% aa sequence identity. OMgp is expressed on the surface of oligodendrocytes and on large projection neurons, including Purkinje cells of the cerebellum, pyramidal cells of the hippocampus, motoneurons of the brainstem and anterior horn cells of the spinal cord (5). The neurite outgrowth inhibitory activities of all three myelin-derived proteins are mediated by binding to a common receptor complex consisting of the Nogo receptor (NgR) and the p75 neurotrophin receptor (NGFR) (2, 3). Besides its function in the inhibition of axonal growth, OMgp has also been implicated in the inhibition of proliferation. Although the transmembrane receptor that mediates the proliferation inhibition activity has not been identified, the LRR repeats of OMgp were shown to be essential for both the proliferation inhibition and neurite outgrowth inhibition activities (6).

## PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.