

Anti-Oligodendrocyte Marker O1 Alexa Fluor® 647 (To Be Discontinued. Refer to Cat. 50-6506)

Catalog Number: 51-6506

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-Oligodendrocyte Marker O1 Alexa Fluor® 647 (To Be Discontinued. Refer to Cat. 50-6506)

 **Catalog Number:** 51-6506

Clone: O1

Concentration: 0.2 mg/mL

Host/Isotype: Mouse IgM



 **LOT**



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C. Do not freeze. Light-sensitive material.

Batch Code: Refer to vial

Use By: Refer to vial

Description

This O1 monoclonal antibody reacts with galactocerebroside and other lipids found on late oligodendrocyte precursors. O1 has been reported to react to all species tested (rat, mouse, human, chicken). Oligodendrocytes function as myelin-producing cells within the central nervous system ensheathing the axons of neurons with myelin in order to facilitate rapid axonal conduction. O1 and O4 monoclonal antibodies serve as stage-specific markers of oligodendrocyte development with O4 marking early oligodendrocyte progenitors and O1-labeling late oligodendrocyte progenitors. O4-positive cells differentiate to become O1-positive, which can in turn become mature oligodendrocytes.

Applications Reported

This O1 antibody has been reported for use in flow cytometric analysis, immunohistochemical staining of frozen tissue sections, and immunocytochemistry.

Applications Tested

This O1 antibody has been tested by immunocytochemistry on formaldehyde-fixed, differentiated OLN93 cells and can be used at less than or equal to 20 ug/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Yang Y, Lewis R, Miller RH. Interactions between oligodendrocyte precursors control the onset of CNS myelination. *Dev Biol.* 2011 Feb 1;350(1):127-38. (O1, IHC-F)

Mela A, Goldman JE. The tetraspanin KAI1/CD82 is expressed by late-lineage oligodendrocyte precursors and may function to restrict precursor migration and promote oligodendrocyte differentiation and myelination. *J Neurosci.* 2009 Sep 9;29(36):11172-81. (O1, ICC)

Bansal R, Warrington AE, Gard AL, Ranscht B, Pfeiffer SE. Multiple and novel specificities of monoclonal antibodies O1, O4, and R-mAb used in the analysis of oligodendrocyte development. *J Neurosci Res.* 1989 Dec;24(4):548-57.

Sommer I, Schachner M. Monoclonal antibodies (O1 to O4) to oligodendrocyte cell surfaces: an immunocytological study in the central nervous system. *Dev Biol.* 1981 Apr 30;83(2):311-27.

Related Products

50-4752 Mouse IgM Isotype Control eFluor® 660

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