Human/Mouse/Rat/Chicken Oligodendrocyte Marker O4 Antibody

Monoclonal Mouse IgM Clone # O4
Catalog Number: MAB1326

DESCRIPTION

Species Reactivity	Human/Mouse/Rat/Chicken
Specificity	Detects human, mouse, rat, and chicken Oligodendrocyte Marker O4.
Source	Monoclonal Mouse IgM Clone # O4
Purification	IgM-specific Affinity-purified from hybridoma culture supernatant
Immunogen	Bovine brain corpus callosum white matter
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

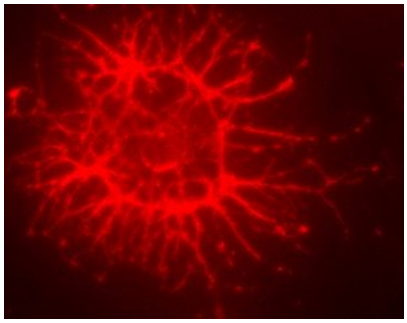
APPLICATIONS

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.*

	Recommended Concentration	Sample
Flow Cytometry	2.5 µg/10^6 cells	Rat differentiated cortical stem cells
Immunocytochemistry	1-10 µg/mL	See Below

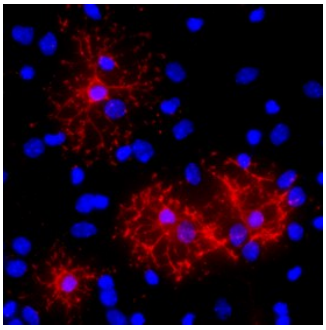
DATA

Immunocytochemistry



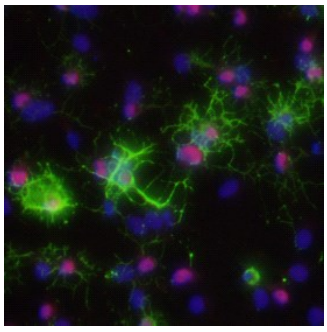
Oligodendrocyte Marker O4 in Differentiated Rat Cortical Stem Cells. Oligodendrocyte Marker O4 was detected in immersion fixed differentiated rat cortical stem cells using 1 µg/mL Mouse Anti-Human/Mouse/Rat/Chicken Oligodendrocyte Marker O4 Monoclonal Antibody (Catalog # MAB1326) for 3 hours at room temperature. Cells were stained (red). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Immunocytochemistry



Oligodendrocyte Marker O4 in Rat Cortical Stem Cells. Oligodendrocyte Marker O4 was detected in immersion fixed 7 day differentiated rat cortical stem cells using 1 µg/mL Mouse Anti-Human/Mouse/Rat/Chicken Oligodendrocyte Marker O4 Monoclonal Antibody (Catalog # MAB1326) for 3 hours at room temperature. Cells were stained (red) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Immunocytochemistry



Olig2 and Oligodendrocyte Marker O4 in Rat Cortical Stem Cells. Olig2 and Oligodendrocyte Marker O4 were detected in 7 day differentiated rat cortical stem cells using 10 µg/mL Human Olig2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2418) and 10 µg/mL Mouse Anti-Human/Mouse/Rat/Chicken O4 Monoclonal Antibody (Catalog # MAB1326). Cells were incubated with primary antibodies for 3 hours at room temperature. Cells were stained for Olig2 using the NorthernLights™ 637-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL002), and stained for O4 using an anti-mouse IgM secondary antibody (pseudo-stained green). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Oligodendrocytes are myelinating cells in the central nervous system (CNS) and form the myelin sheath of axons to support rapid nerve conduction. Oligodendrocyte Marker O4 is an antigen on the surface of oligodendrocyte progenitors (1, 2). It has been commonly used as the earliest recognized marker specific for the oligodendroglial lineage (3-8).

References:

1. Schachner, M. *et al.* (1981) Dev. Biol. **83**:328.
2. Bansal, R. *et al.* (1989) J. Neurosci. Res. **24**:548.
3. Bansal, R. and Pfeiffer, S.E. (1989) Proc. Natl. Acad. Sci. USA **86**:6181.
4. Gard, A. *et al.* (1995) Dev. Biol. **167**:596.
5. Reynolds, R. and Hardy, R. (1997) J. Neurosci. Res. **47**:455.
6. Ono, K. *et al.* (1997) J. Neurosci. Res. **48**:212.
7. Pang, Y. *et al.* (2000) J. Neurosci. Res. **62**:510.
8. Cai, Z. *et al.* (2001) Brain Res. **898**:126.