

## Anti-Oligodendrocyte Marker O4 Antibody, Clone 81



Scientists Helping Scientists™ | [WWW.STEMCELL.COM](http://WWW.STEMCELL.COM)

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

[INFO@STEMCELL.COM](mailto:INFO@STEMCELL.COM) • [TECHSUPPORT@STEMCELL.COM](mailto:TECHSUPPORT@STEMCELL.COM)

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

## Antibodies

Mouse monoclonal IgM antibody  
against human, mouse, rat  
oligodendrocyte marker O4,  
unconjugated

Catalog #60053

50 µg 0.5 mg/mL

## Product Description

O-Antigens are expressed on oligodendrocytes during differentiation and on mature oligodendrocytes in the central nervous system. O4 is formed during postnatal development and is a marker for cell bodies and processes of oligodendrocytes types I and II. O4 is expressed in pro-oligodendrocytes, however, it is not found on O-2A-progenitor cells.

|                      |                                                                        |
|----------------------|------------------------------------------------------------------------|
| Target Antigen Name: | Oligodendrocyte Marker O4                                              |
| Alternative Names:   | CLDN11, Claudin-11, Oligodendrocyte transmembrane protein              |
| Gene ID:             | 5010                                                                   |
| Species Reactivity:  | Human, Mouse, Rat, Chicken, Cow, Pig                                   |
| Host Species:        | Mouse                                                                  |
| Clonality:           | Monoclonal                                                             |
| Clone:               | 81                                                                     |
| Isotype:             | IgM                                                                    |
| Immunogen:           | White matter homogenate obtained from the corpus callosum of cow brain |
| Conjugate:           | Unconjugated                                                           |

## Applications

|           |                        |
|-----------|------------------------|
| Verified: | ICC                    |
| Reported: | FACS, FC, ICC, IF, IHC |

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

## Properties

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Formulation:           | Buffer containing phosphate, sodium chloride, and 0.05% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Purification:          | The antibody was purified by ion-exchange chromatography.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Stability and Storage: | Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact <a href="mailto:techsupport@stemcell.com">techsupport@stemcell.com</a> .                                                                                                                                                                                                                                                                                                                             |
| Directions for Use:    | <p>The suggested use of this antibody is: ICC, 10 - 20 µg/mL; IHC, 10 - 20 µg/mL. It is recommended that the antibody be titrated for optimal performance for each application.</p> <p>For further instructions on how to use this antibody, refer to the Technical Manual: In Vitro Proliferation and Differentiation of Human Neural Stem and Progenitor Cells Using NeuroCult™ or NeuroCult™-XF (Document #28724) available on our website at <a href="http://www.stemcell.com">www.stemcell.com</a>.</p> |

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

1. Thanasupawat T et al. (2015) Platinum (IV) coiled coil nanotubes selectively kill human glioblastoma cells. *Nanomedicine* 11(4): 913–25. (ICC, IF, IHC)
2. Konig N et al. (2014) Murine neural crest stem cells and embryonic stem cell-derived neuron precursors survive and differentiate after transplantation in a model of dorsal root avulsion. *J Tissue Eng Regen Med*. doi: 10.1002/term.1893. (IHC)
3. Li Q et al. (2014) Production of healthy cloned pigs with neural stem cells as nuclear donors. *Anim Biotechnol* 25(4): 294–305. (ICC, IF)
4. Ebrahimi-Barough S et al. (2013) Programming of human endometrial-derived stromal cells (EnSCs) into pre-oligodendrocyte cells by overexpression of miR-219. *Neurosci Lett* 537: 65–70. (IF, ICC)
5. Coombs ID et al. (2012) Cornichons modify channel properties of recombinant and glial AMPA receptors. *J Neurosci* 32(29): 9796–804. (ICC, IF)
6. Tracy ET et al. (2011) Isolation and expansion of oligodendrocyte progenitor cells from cryopreserved human umbilical cord blood. *Cytotherapy* 13(6): 722–9. (FC)
7. Bambakidis NC et al. (2010) Intravenous hedgehog agonist induces proliferation of neural and oligodendrocyte precursors in rodent spinal cord injury. *Neurosurgery* 67(6): 1709–15. (ICC, IF)
8. Deleyrolle LP & Reynolds BA. (2009) Isolation, expansion, and differentiation of adult Mammalian neural stem and progenitor cells using the neurosphere assay. *Methods Mol Biol* 549: 91–101. (ICC, IF)
9. Louis SA et al. (2008) Enumeration of neural stem and progenitor cells in the neural colony-forming cell assay. *Stem Cells* 26(4): 988–96. (ICC, IF)
10. Kucia M et al. (2006) Cells enriched in markers of neural tissue-committed stem cells reside in the bone marrow and are mobilized into the peripheral blood following stroke. *Leukemia* 20(1): 18–28. (ICC, IF)

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2016 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, and NeuroCult are trademarks of STEMCELL Technologies Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.