

**Nestin (Rat-401) Mouse mAb (Alexa Fluor®  
647 Conjugate)****Orders:** 877-616-CELL (2355)  
orders@cellsignal.com**Support:** 877-678-TECH (8324)**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> IF-F	<b>Reactivity:</b> R	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Mouse IgG1	<b>UniProt ID:</b> #P21263	<b>Entrez-Gene Id:</b> 25491
------------------------------	-------------------------	-----------------------------------	--------------------------------------	-------------------------------	---------------------------------

**Product Usage  
Information****Application**

Immunofluorescence (Frozen)

**Dilution**

1:50

**Storage**

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

**Specificity/Sensitivity**

Nestin (Rat-401) Mouse mAb (Alexa Fluor® 647 Conjugate) recognizes endogenous levels of nestin protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with E15 rat spinal cord.

**Description**

This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 647 fluorescent dye and tested in-house for immunofluorescent analysis in rat brain. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Nestin (Rat-401) Mouse mAb #4760.

**Background**

Nestin is an intermediate filament family member protein that is structurally related to the neurofilament proteins (1). It is highly expressed in the developing brain, where it may help to regulate cell structure and intracellular processes required for neural cell division and migration (1,2). Upon maturation of the brain, nestin expression is quickly downregulated and replaced by expression of the neurofilament proteins (2). Because nestin is expressed in both mature and precursor neuronal and glial cells, as well as in the developing brain and in the brain and spinal cord following damage, nestin is widely accepted as a marker of neural stem/progenitor cells (3). Research studies have shown that expression of nestin is also found in cells from various nervous system tumors, including gliomas, neuroblastomas, and astrocytomas, and it is generally accepted as a marker for neural cancer stem cells (3). However, nestin expression has also been observed in astrocytes, retina, cardiac muscle, pancreas, and other tissues (3). Therefore, the acceptance of nestin as an exclusive marker of neural stem/progenitor cells is not unanimous.

**Background References**

1. Michalczyk, K. and Ziman, M. (2005) *Histol Histopathol* 20, 665-71.
2. Giliarov, A.V. (2007) *Morfologija* 131, 85-90.
3. Gilyarov, A.V. (2008) *Neurosci Behav Physiol* 38, 165-9.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Applications Key****IF-F:** Immunofluorescence (Frozen)**Cross-Reactivity Key****R:** Rat**Trademarks and Patents**

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

This product is provided under an intellectual property license from Life Technologies Corporation. The transfer of this product is conditioned on the buyer using the purchased product solely in research conducted by the buyer, excluding contract research or any fee for service research, and the buyer must not (1) use this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; or (c) manufacturing or quality assurance or quality control, and/or (2) sell or transfer this product or its components for resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@lifetech.com.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](http://cellsignal.com/trademarks) for more information.

## Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.