

**DESCRIPTION**

<b>Species Reactivity</b>	Rat
<b>Specificity</b>	Detects rat Nestin in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant mouse Nestin is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant rat Nestin Met544-Glu820 (Gly756Asp, Ile758Met, Arg572Lys, Ala574Pro, Ile802Met, Arg816Lys) Accession # EDM00749
<b>Formulation</b>	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.

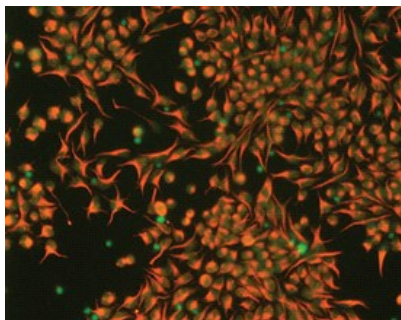
**APPLICATIONS**

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Rat Nestin
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	Immersion fixed paraffin-embedded sections of rat embryo (E15)

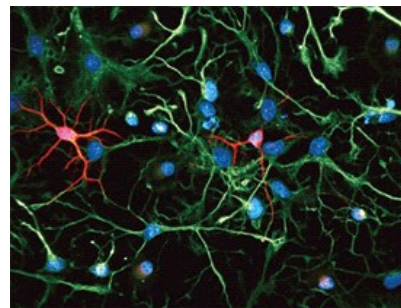
**DATA**

**Immunocytochemistry**



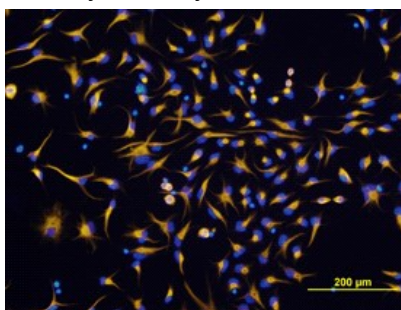
**Nestin in Rat Cortical Stem Cells.** Nestin was detected in immersion fixed rat cortical stem cells using 10 µg/mL Goat Anti-Rat Nestin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2736) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained (green). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

**Immunocytochemistry**



**β-III Tubulin and Nestin in Rat Cortical Stem Cells.** β-III Tubulin and Nestin were detected in rat cortical stem cells (Catalog # NSC001) using 5 µg/mL neuron-specific Mouse β-III Tubulin Monoclonal (clone TuJ-1) Antibody (Catalog # MAB1195) and 10 µg/mL Goat Anti-Rat Nestin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2736). Cells were incubated with primary antibodies for 3 hours at room temperature. Cells were stained for beta-III Tubulin using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and for Nestin using the NorthernLights 493-conjugated Anti-Goat IgG Secondary Antibody (green; Catalog # NL003). Tissue was counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

**Immunocytochemistry**



**Nestin in Rat Cortical Stem Cells.** Nestin was detected in immersion fixed rat cortical stem cells using Goat Anti-Rat Nestin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2736) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (yellow; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>

#### BACKGROUND

Nestin is a 240 kDa class VI intermediate filament protein that was first identified in neuroepithelial stem cells (1, 2). It has been used extensively as a marker to identify central nervous system (CNS) stem cell populations. In addition, Nestin has been found to be a marker for multi-lineage progenitor cells. Over the region used for immunization, rat Nestin shares 76% amino acid sequence homology with the mouse protein.

#### References:

1. Hockfield, S. and R.D. McKay (1985) J. Neurosci. **5**:3310.
2. Lendahl, U. *et al.* (1990) Cell **60**:585.