

DESCRIPTION

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

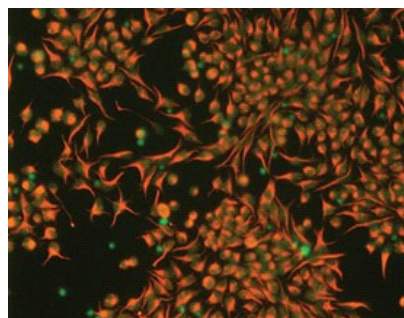
APPLICATIONS

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

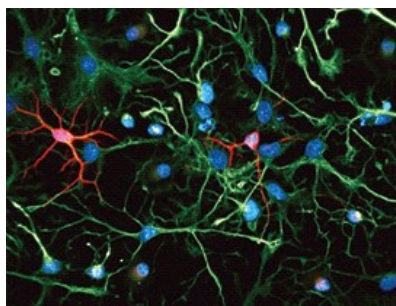
DATA

Immunocytochemistry



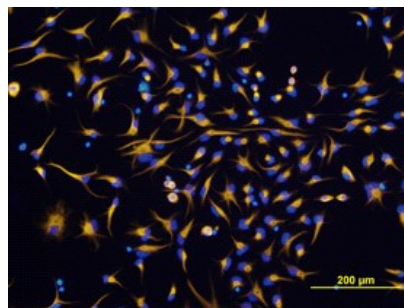
Nestin in Rat Cortical Stem Cells. Nestin was detected in immersion fixed rat cortical stem cells using 10 µg/mL Goat Anti-Rat Nestin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2736) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat 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

Reconstitution Reconstitute at 0.2 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.

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.