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Nestin Antibody
Mouse monoclonal antibody
Catalog # AN1216

Specification

Nestin Antibody - Product Information

Application	**WB, IF**
Primary Accession	P48681
Reactivity	**Human, Mouse, Rat**
Host	**Mouse**
Clonality	**monoclonal**
Isotype	**IgG1**
Calculated MW	**240 KDa**

Nestin Antibody - Additional Information

Gene ID	**10763**
Gene Name	**NES**

Other Names
Nestin, NES

Target/Specificity
Recombinant human Nestin expressed in and purifeid from E. coli.

Dilution
WB~~ 1:2000
IF~~ 1:500

Format
Protein G purified antibody in 100 ul PBS + 10 mM NaN3

Antibody Specificity
Specific for the ~220-240 kDa nestin doublet in Western blot in neonatal rat brain homogenate.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Nestin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Nestin Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

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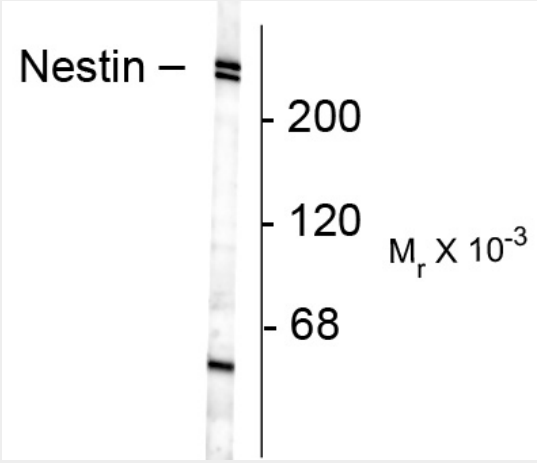
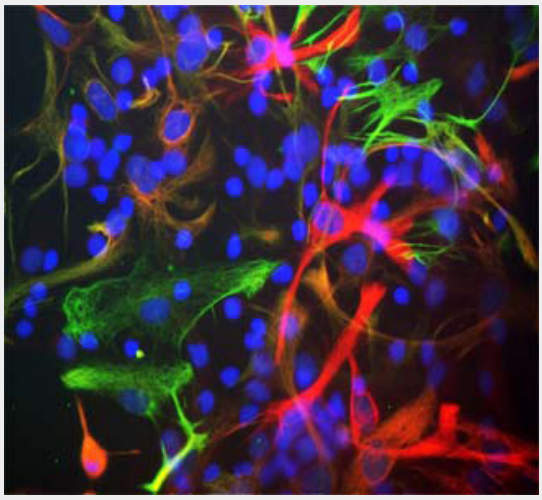
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Nestin Antibody - Images



Western blot of neonatal rat brain lysate showing specific immunolabeling of the ~220-240 k nestin doublet.



Immunochemical staining of cultured neonatal rat neurons and glia showing nestin labeling in red and vimentin in green. Astrocytes and neuronal stem cells stain strongly and specifically in a clearly filamentous fashion with the anti-Nestin antibody. The presence of Nestin indicates that the cells are developing astrocytes, neuroblasts or undifferentiated neural stem cells.

Nestin Antibody - Background

Nestin is a member of the class IV intermediate filament protein family which is expressed in neuronal stem cells (Lendahl et al., 1990). Nestin was originally identified as a result of the production of a series of monoclonal antibodies directed against epitopes expressed on formalin fixed embryo day 15 rat spinal cord (Hockfield et al., 1985)). One of these antibodies, called Rat

401, stained fibrous profiles in the developing nervous system, but not in the mature nervous system. By screening bacteriophage expression libraries with Rat 401, Lendahl et al. were able to isolate a cDNA encoding the protein to which Rat 401 antibody bound. The protein proved to be an unusual member of the intermediate filament family, containing an alpha-helical region homologous to that found in keratin and neurofilament subunits.

Nestin Antibody - References

Lendahl U, Zimmerman LB and McKay RD. CNS stem cells express a new class of intermediate filament protein. Cell 60:585-95 (1990).
Hockfield S and McKay RD. Identification of major cell classes in the developing mammalian nervous system. J. Neurosci. 5:3310-3328 (1985).