

Nestin

Cat.No. 312 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: yes ICC: yes IHC: yes IHC-P/FFPE: not tested yet ELISA: yes
Clone	JP63
Subtype	IgG1 (κ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 1618 from human Nestin (UniProt Id: P48681)
Epitop	Epitop: AA 1 to 1618 from human Nestin (UniProt Id: P48681)
Reactivity	Reacts with: human (P48681), monkey. Other species not tested yet.
Specificity	Specific for human nestin.
Remarks	Differences between clone JP 63 and clone JP39 in application or specificity not determined yet.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Nestin is expressed in early embryonic neuroepithelial stem cells during development of the CNS. The protein is downregulated and replaced by other tissue specific intermediate filaments during differentiation. Antibodies against this protein can be employed as predominant markers for stem and progenitor cells in the mammalian CNS.

Nestin is also a useful marker-protein for brain tumors of both glial and neuronal lineage.

Selected References SYSY Antibodies

NDRG2 as a marker protein for brain astrocytes.
Flügge G, Araya-Callis C, Garea-Rodriguez E, Stadelmann-Nessler C, Fuchs E
Cell and tissue research (2014) 357(1): 31-41. **IHC; tested species: marmoset**

Selected General References

Nestin expression as a new marker in malignant peripheral nerve sheath tumors.
Shimada S, Tsuzuki T, Kuroda M, Nagasaka T, Hara K, Takahashi E, Hayakawa S, Ono K, Maeda N, Mori N, Illei PB, et al.
Pathology international (2007) 57(2): 60-7.

Expression of nestin in the podocytes of normal and diseased human kidneys.
Su W, Chen J, Yang H, You L, Xu L, Wang X, Li R, Gao L, Gu Y, Lin S, Xu H, et al.
American journal of physiology. Regulatory, integrative and comparative physiology (2007) 292(5): R1761-7.

Nestin is expressed in the basal/myoepithelial layer of the mammary gland and is a selective marker of basal epithelial breast tumors.

Li H, Cherukuri P, Li N, Cowling V, Spinella M, Cole M, Godwin AK, Wells W, DiRenzo J
Cancer research (2007) 67(2): 501-10.

Nestin expression in adult and developing human kidney.
Bertelli E, Regoli M, Fonzi L, Occhini R, Mannucci S, Ermini L, Toti P
The journal of histochemistry and cytochemistry : official journal of the Histochemistry Society (2007) 55(4): 411-21.

Cyclopamine treatment of human embryonic stem cells followed by culture in human astrocyte medium promotes differentiation into nestin- and GFAP-expressing astrocytic lineage.
Lee DS, Yu K, Rho JY, Lee E, Han JS, Koo DB, Cho YS, Kim J, Lee KK, Han YM
Life sciences (2006) 80(2): 154-9.

Evidence for a distinct group of nestin-immunoreactive neurons within the basal forebrain of adult rats.
Wang S, Yao Z, Wang J, Ai Y, Li D, Zhang Y, Mao J, Gu H, Ruan Y, Mao J
Neuroscience (2006) 142(4): 1209-19.

Nestin immunoreactivity of Purkinje cells in Creutzfeldt-Jakob disease.
Mizuno Y, Ohama E, Hirato J, Nakazato Y, Takahashi H, Takatama M, Takeuchi T, Okamoto K
Journal of the neurological sciences (2006) 246(1-2): 131-7.

Long-lasting coexpression of nestin and glial fibrillary acidic protein in primary cultures of astroglial cells with a major participation of nestin(+)/GFAP(-) cells in cell proliferation.
Sergent-Tanguy S, Michel DC, Neveu I, Naveilhan P
Journal of neuroscience research (2006) 83(8): 1515-24.

Colocalization of nestin and vimentin/desmin in skeletal muscle cells demonstrated by three-dimensional fluorescence digital imaging microscopy.
Sjöberg G, Jiang WQ, Ringertz NR, Lendahl U, Sejersen T
Experimental cell research (1994) 214(2): 447-58.

Expression of the class VI intermediate filament nestin in human central nervous system tumors.
Dahlstrand J, Collins VP, Lendahl U
Cancer research (1992) 52(19): 5334-41.

Nestin expression in embryonic human neuroepithelium and in human neuroepithelial tumor cells.
Tohyama T, Lee VM, Rorke LB, Marvin M, McKay RD, Trojanowski JQ
Laboratory investigation; a journal of technical methods and pathology (1992) 66(3): 303-13.