Anti-Human Nestin Antibody, Clone 10C2, Alexa Fluor® 488

Antibodies

Mouse monoclonal IgG1 antibody against human, cynomolgus nestin, Alexa Fluor® 488-conjugated

Catalog	#60091AD	100 µg	0.5 mg/mL
	#60091AD.1	25 µg	0.5 mg/mL

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Product Description

The 10C2 antibody reacts with human nestin, a class VI intermediate filament (IF) protein expressed by embryonic neuroepithelial stem cells in the developing nervous system and by pancreatic islet and mesenchymal progenitor cells. Nestin expression is also observed in glioblastomas and many primary and metastatic melanomas, and it is a useful angiogenic marker to evaluate neovascularity of endothelial cells in tumors. Nestin is required for the survival and renewal of neural progenitor cells and plays roles in cellular remodeling by forming heterodimers with vimentin or alpha-internexin, a process that appears to be tightly regulated by phosphorylation. Nestin localizes to the growth cones during axon elongation in differentiating neurons and may play a role in growth cone guidance. Nestin expression is down-regulated during differentiation, typically disappearing by embryonic stage E18. The 10C2 antibody reportedly cross-reacts weakly with monkey nestin but not rodent nestin. A doublet band of ~220 - 250 kDa is observed on western blots with this antibody.

Target Antigen Name:	Nestin
Alternative Names:	NES, type VI intermediate filament (IF) protein
Gene ID:	10763
Species Reactivity:	Human, Cynomolgus
Host Species:	Mouse (BALB/c)
Clonality:	Monoclonal
Clone:	10C2
Isotype:	IgG1, kappa
Immunogen:	Recombinant protein comprising amino acids 1464 - 1614 of human nestin fused to glutathione S-transferase
Conjugate:	Alexa Fluor® 488

Applications

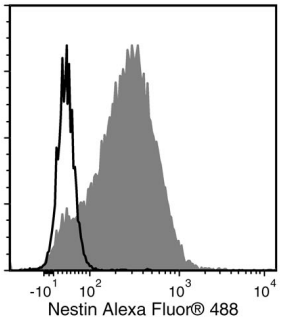
Verified:	FC, ICC, IF
Reported:	ICC, IF, IHC
Special Applications:	This antibody clone has been verified for labeling human neural stem and progenitor cells grown with STEMdiff™ Neural Induction Medium (Catalog #05835), STEMdiff™ Neural Progenitor Medium (Catalog #05833), and NeuroCult™ NS-A Proliferation Kit (Human; Catalog #05751).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin
Purification:	The antibody was purified by column chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, contact techsupport@stemcell.com.
Directions for Use:	The suggested use of this antibody is: FC, ≤ 1 µg per 1 x 10^6 cells in 100 µL; ICC/IF, ≤ 10 µg/mL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human neural progenitor cells (NPCs) generated from induced pluripotent stem (iPS) cells using STEMdiff™ Neural Induction Medium and cultured on Corning® Matrigel®. NPCs were fixed and labeled with Anti-Human Nestin Antibody, Clone 10C2, Alexa Fluor® 488 (filled histogram) or a mouse IgG1, kappa Alexa Fluor® 488 isotype control antibody (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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