

Purified anti-Nestin Antibody

Catalog# / Size	656801 / 25 µg 656802 / 100 µg
Clone	10C2
Regulatory Status	RUO
Other Names	NES
Isotype	Mouse IgG1, κ
Description	Nestin is a class VI intermediate filament protein originally found in neuronal stem cells, and is required for survival and renewal of neural progenitor cells. In mixtures, Nestin forms heterodimers with vimentin or internexin, participating in the remodeling of the cell. Nestin was found to be expressed on vascular endothelial progenitor cells and various neoplasms. It is proposed to be a novel angiogenesis marker and cancer therapeutic target.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Fusion protein
Formulation	This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	WB - Quality tested ICC - Verified IHC-P - Reported in the literature. not verified in house
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . For Western blotting, the suggested use of this reagent is 0.5 - 2.0 µg per ml. For immunocytochemistry, a concentration range of 1.0 - 5.0 µg/ml is recommended. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemistry ¹ .
Application References	1. Jozef S, <i>et al.</i> 2012. <i>Biomed. Pap. Med. Fac.</i> 156:135. (IHC)
Product Citations	1. Di Stefano B, <i>et al.</i> 2019. <i>Cell Stem Cell.</i> 25:622. PubMed 2. Hu YB, <i>et al.</i> 2021. <i>Aging Cell.</i> 20:e13454. PubMed 3. Feng H, <i>et al.</i> 2021. <i>Stem Cell Research.</i> 53:102346. PubMed 4. Zelenova EA, <i>et al.</i> 2021. <i>Cells.</i> 10:. PubMed
RRID	AB_2562473 (BioLegend Cat. No. 656801) AB_2562474 (BioLegend Cat. No. 656802)

Antigen Details

Structure	1621 amino acids with predicted molecular weight of 177 kD. The observed molecular weight is larger than 250 kD.
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Distribution	Cytosol
Function	Required for survival and renewal of neural progenitor cells; plays roles in angiogenesis and tumor formation
Interaction	Vimentin, alpha-internexin and FHOD3
Cell Type	Neural Stem Cells
Biology Area	Angiogenesis, Cell Biology, Cell Motility/Cytoskeleton/Structure, Immunology, Neuroscience, Neuroscience Cell Markers, Stem Cells
Molecular Family	Intermediate Filaments
Antigen References	<ol style="list-style-type: none"> 1. Matsuda Y, <i>et al.</i> 2013. <i>World J. Gastroenterol.</i> 19:42. 2. Matsuda Y, <i>et al.</i> 2012. <i>Med. Mol. Morphol.</i> 45:59. 3. Krupkova O Jr, <i>et al.</i> 2010. <i>Neoplasma.</i> 57:291. 4. Hombach-Klonisch S, <i>et al.</i> 2008. <i>Arch. Immunol. Ther. Exp. (Warsz).</i> 56:165. 5. Pilkington GJ, <i>et al.</i> 2005. <i>Cell Prolif.</i> 38:423.
Gene ID	10763

Related Protocols

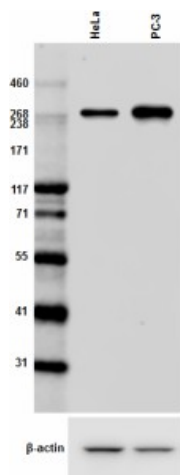
[Immunocytochemistry Staining Protocol](#)

[Western Blotting Protocol](#)

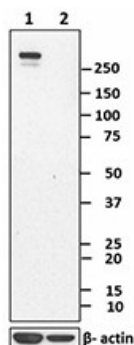
Other Formats

Purified anti-Nestin, Alexa Fluor® 594 anti-Nestin, Brilliant Violet 421™ anti-Nestin, PE anti-Nestin, Alexa Fluor® 647 anti-Nestin, Direct-Blot™ HRP anti-Nestin, Alexa Fluor® 488 anti-Nestin

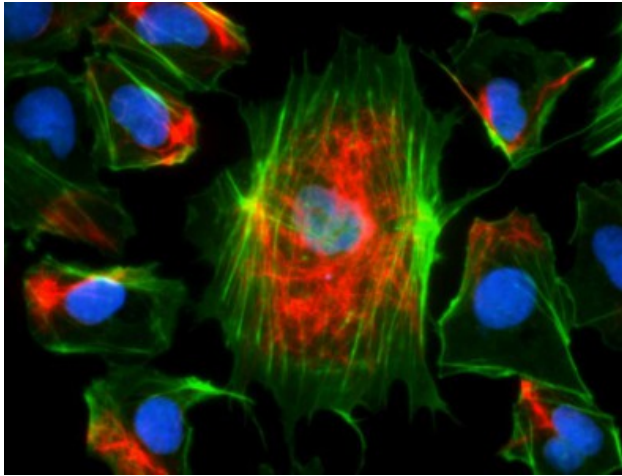
Product Data



Total lysates (15 µg protein) from HeLa (Low expression negative control) and PC-3 (Positive control) were resolved by electrophoresis (4-20% Tris-glycine gel), transferred to nitrocellulose, and probed with 1:500 (1 µg/ml) purified anti-Nestin antibody, clone 10C2. Proteins were visualized using chemiluminescence detection by incubation with HRP Goat anti-Mouse secondary antibody (Cat. No. 405306, 1:3000 dilution). Direct-Blot™ HRP anti-β-actin antibody was used as a loading control (Cat. No. 643807, 1:8000 dilution).



NTERA-2 cells were fixed with 2% paraformaldehyde (PFA) for 10 minutes, permeabilized with 0.5% Triton X-100 for 5 minutes, and blocked with 5% FBS for 30 minutes. Then the cells were intracellularly stained with 2 µg/mL anti-Nestin Antibody (10C2) and followed by DyLight™ 594 goat anti-mouse IgG (red) for 1 hour at room temperature. Actin filaments were labeled with Alexa Fluor® 488 Phalloidin (green). Nuclei were counterstained with DAPI (blue). The image was captured with a 40X objective.



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