

## Alexa Fluor® 647 anti-Nestin Antibody

<b>Catalog# / Size</b>	656810 / 100 µg
<b>Clone</b>	10C2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	NES
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	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

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Fusion protein
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICC - Quality tested</a> <a href="#">IHC-P - Verified</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by immunocytochemistry. For immunocytochemistry, a concentration range of 2.5 - 5.0 µg/ml is recommended. For immunohistochemical staining on formalin-fixed paraffin-embedded tissue sections, a concentration range of 5.0 - 10.0 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.</p> <p>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p><a href="#">View full statement regarding label licenses</a></p>
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunohistochemistry <sup>1</sup> .
<b>Application References</b> (PubMed link indicates BioLegend citation)	1. Jozef S, et al. 2012. <i>Biomed. Pap. Med. Fac.</i> 156:135. (IHC)
<b>RRID</b>	AB_2616772 (BioLegend Cat. No. 656810)

### Antigen Details

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<b>Structure</b>	1621 amino acids with predicted molecular weight of 200-220 kD
<b>Distribution</b>	Cytosol
<b>Function</b>	Required for survival and renewal of neural progenitor cells; plays roles in angiogenesis and tumor formation
<b>Interaction</b>	Vimentin, alpha-internexin and FHOD3
<b>Cell Type</b>	Neural Stem Cells
<b>Biology Area</b>	Angiogenesis, Cell Biology, Cell Motility/Cytoskeleton/Structure, Immunology, Neuroscience, Neuroscience Cell Markers, Stem Cells
<b>Molecular Family</b>	Intermediate Filaments
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Matsuda Y, <i>et al.</i> 2013. <i>World J. Gastroenterol.</i> 19:42.</li> <li>2. Matsuda Y, <i>et al.</i> 2012. <i>Med. Mol. Morphol.</i> 45:59.</li> <li>3. Krupkova O Jr, <i>et al.</i> 2010. <i>Neoplasma.</i> 57:291.</li> <li>4. Hombach-Klonisch S, <i>et al.</i> 2008. <i>Arch. Immunol. Ther. Exp. (Warsz).</i> 56:165.</li> <li>5. Pilkington GJ, <i>et al.</i> 2005. <i>Cell Prolif.</i> 38:423.</li> </ol>
<b>Gene ID</b>	<a href="#">10763</a>

## Related Protocols

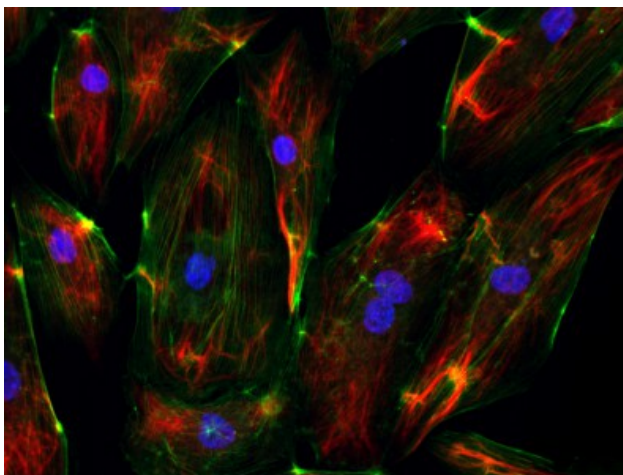
[Immunocytochemistry Staining Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

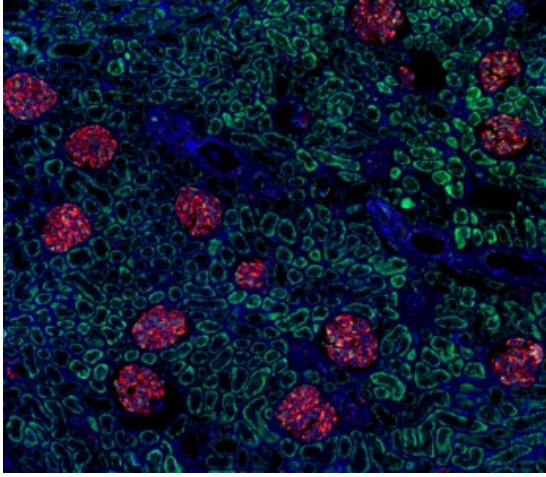
## Other Formats

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



HUVEC cells were fixed with 1% paraformaldehyde (PFA), permeabilized with 0.5% Triton X-100, and blocked with 5% fetal bovine serum (FBS) for 30 minutes at room temperature. Then the cells were stained with 5 µg/ml of anti-Nestin (clone 10C2) Alexa Fluor® 647 (red) overnight, followed by Alexa Fluor® 488 Phalloidin (green) staining for 20 minutes at 4°C. Nuclei were counterstained with DAPI (blue). The image was captured with a 20X objective.



Human paraffin-embedded kidney tissue slices were prepared with a standard protocol of deparaffination and rehydration. Antigen retrieval was done with Citrate-Buffered 1X pH 6.0 at 95°C for 40 minutes. Tissue was washed with PBS/0.05% Tween 20 twice for five minutes, permeabilized with 0.5% Tween 20 in PBS and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the tissue was stained with 10 µg/ml of Alexa Fluor® 594 anti-human Cadherin 11 (clone 16G5) antibody (green) and Alexa Fluor® 647 anti-Nestin (clone 10C2) antibody (red) overnight at 4°C. Nuclei were counter-stained with DAPI (blue). The image was scanned with a 10X objective and stitched with MetaMorph® software.

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