

Datasheet: 6625-1010

**BATCH NUMBER 170829**

<b>Description:</b>	MOUSE ANTI RAT NESTIN
<b>Specificity:</b>	NESTIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	Rat-401 (4D4)
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			1/20 - 1/200
Immunohistology - Paraffin	▪			1/20 - 1/200
Western Blotting	▪			
Immunofluorescence	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

### Target Species

Rat

### Species Cross Reactivity

Reacts with: Mouse  
Does not react with: Human

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

### Product Form

Purified IgG - liquid

### Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

<b>Buffer Solution</b>	TRIS buffered saline.
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5mg/ml
<b>Immunogen</b>	Nestin purified from embryonic rat spinal cord.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P21263</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">25491</a>    Nes    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_2151135
<b>Fusion Partners</b>	Spleen cells from immunised Balb/c mice were fused with cells of the NS1 myeloma cell line.
<b>Specificity</b>	<b>Mouse anti Rat Nestin antibody, clone Rat-401</b> recognizes rat nestin, a large intermediate filament protein transiently expressed in embryonic glial cells ( <a href="#">Hockfield and McKay 1985</a> ). It is predominately expressed in stem cells of the developing nervous system. Terminal differentiation is associated with a loss of nestin expression. Nestin expression has also been noted in other embryonic tissues, also in most Glioblastoma multiformes and many melanomas.
<b>Immunohistology</b>	We recommend perfusing tissues with 4% paraformaldehyde at pH 7.4 for light microscopy or with either 4% paraformaldehyde at pH 10.0 or 4% paraformaldehyde with 0.1% glutaraldehyde at pH 7.4 for EM. For Immunocytochemistry we recommend using cells fixed in 4% paraformaldehyde buffered with 50 mM sodium borate at pH 9.5.
<b>Western Blotting</b>	Mouse anti Rat Nestin antibody, clone Rat-401 reacts with a band at 200-220 kDa in reducing gels of newborn rat or mouse cell extracts. For western blotting it is recommended that samples should be boiled in 4 volumes of 125 mM Tris, pH 6.8, 10% 2-mercaptoethanol, 10% glycerol and 4.6% SDS. Membranes should be blocked with milk or BSA. 5% PAGE gels are suggested.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Arnold, T.D. <i>et al.</i> (2012) Defective Retinal Vascular Endothelial Cell Development As a Consequence of Impaired Integrin <math>\alpha</math>V<math>\beta</math>8-Mediated Activation of Transforming Growth Factor-<math>\beta</math>. <a href="#">J Neurosci. 32: 1197-206.</a></li> <li>2. Mori, T. <i>et al.</i> (2005) Combination of hTERT and bmi-1, E6, or E7 induces prolongation of the life span of bone marrow stromal cells from an elderly donor without affecting their neurogenic potential. <a href="#">Mol Cell Biol. 25: 5183-95.</a></li> <li>3. Choi, J.S. <i>et al.</i> (2010) Expression of vascular endothelial growth factor receptor-3 mRNA in the rat developing forebrain and retina. <a href="#">J Comp Neurol. 518: 1064-81.</a></li> <li>4. Choi, J.S. <i>et al.</i> (2007) Upregulation of vascular endothelial growth factor receptors</li> </ol>

Flt-1 and Flk-1 following acute spinal cord contusion in rats. [J Histochem Cytochem. 55: 821-30.](#)

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15. Shin, Y.J. *et al.* (2016) Increased expression of suppressor of cytokine signaling 2 in the subventricular zone after transient focal cerebral ischemia in adult rats. [Brain Res. Jul 26. \[Epub ahead of print\]](#)

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<b>Storage</b>	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10057 available at: <a href="https://www.bio-rad-antibodies.com/SDS/6625-1010">https://www.bio-rad-antibodies.com/SDS/6625-1010</a> 10057
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

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'M342467:190110'

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