

Datasheet: 6625-1010

Description:	MOUSE ANTI RAT NESTIN
Specificity:	NESTIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	Rat-401 (4D4)
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			1/40 - 1/400
Immunohistology - Paraffin	▪			1/40 - 1/400
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 A from tissue culture supernatant

Buffer Solution

TRIS buffered glycine.

Preservative Stabilisers	0.05% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Nestin purified from embryonic rat spinal cord.
External Database Links	<p>UniProt: P21263 Related reagents</p> <p>Entrez Gene: 25491 Nes Related reagents</p>
RRID	AB_2151135
Fusion Partners	Spleen cells from immunized Balb/c mice were fused with cells of the NS1 myeloma cell line.
Specificity	Mouse anti Rat Nestin antibody, clone Rat-401 recognizes rat nestin, a large intermediate filament protein transiently expressed in embryonic glial cells (Hockfield and McKay 1985). 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.
Immunohistology	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.
Western Blotting	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.
References	<ol style="list-style-type: none"> 1. Aleksandrova, M.A. <i>et al.</i> (2001) Transplantation of Cultured Human Neural Progenitor Cells into Rat Brain: Migration and Differentiation Bull Exp Biol Med. 132: 1000-3. 2. Poltavtseva, R.A. <i>et al.</i> (2001) <i>In vitro</i> development of neural progenitor cells from human embryos. Bull Exp Biol Med. 132: 861-3. 3. Bertelli, E. <i>et al.</i> (2002) Nestin expression in rat adrenal gland. Histochem Cell Biol. 117: 371-7. 4. Zhang, H. <i>et al.</i> (2003) VEGF is a chemoattractant for FGF-2-stimulated neural progenitors. J Cell Biol. 163: 1375-84. 5. 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. Mol Cell Biol. 25: 5183-95.

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14. Araujo, R.M. *et al.* (2016) Mesenchymal stem cells promote augmented response of endogenous neural stem cells in spinal cord injury of rats [Semina: Ciências Agrárias. 37 \(3\): 1355.](#)
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Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10072 available at: <https://www.bio-rad-antibodies.com/SDS/6625-1010>
10072

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

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

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA1209\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M381560:210512'

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