

## Datasheet: MCA1321GA

<b>Description:</b>	MOUSE ANTI RAT NEUROFILAMENT 200kDa
<b>Specificity:</b>	NEUROFILAMENT H 200kDa
<b>Other names:</b>	NEUROFILAMENT HEAVY POLYPEPTIDE
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RT97
<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
Flow Cytometry			■	
Immunohistology - Frozen	■			
Immunohistology - Paraffin	■			1/50 - 1/100
ELISA			■	
Immunoprecipitation			■	
Western Blotting			■	

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Rat
<b>Species Cross Reactivity</b>	Reacts with: Reptile, Human, Chicken, Pig, Mouse <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by hydrophobic interaction chromatography from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.1% Sodium Azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	0.1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml
<b>Immunogen</b>	Triton X-100-insoluble rat brain protein.

**External Database  
Links**

**UniProt:**

[P16884](#)   [Related reagents](#)

**Entrez Gene:**

[24587](#)   Nefh   [Related reagents](#)

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**Synonyms**

Nfh

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**RRID**

AB\_1102789

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**Specificity**

**Mouse anti Rat Neurofilament 200kDa antibody, clone RT97** recognizes the 200kDa neurofilament protein in a range of species. Mouse anti Rat Neurofilament 200kDa antibody, clone RT97 stains various tumors including pheochromocytoma, paraganglioma and ganglioneuroblastoma.

Mouse anti Rat Neurofilament 200kDa antibody, clone RT97 also recognizes a phosphorylation dependent epitope on fetal tau, Alzheimer's paired helical filament-tau and on microtubule associated protein 1B (MAP1B) by western blotting, however similar reactivity was not apparent in immunohistochemical studies ([Johnstone et al. 1997](#)).

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**Immunohistology**

This product does not require protein digestion pre-treatment of paraffin sections. This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections.

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**Histology Positive  
Control Tissue**

Brain or spinal cord

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**References**

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2. Anderton, B.H. *et al.* (1982) Monoclonal antibodies show that neurofibrillary tangles and neurofilaments share antigenic determinants. [Nature. 298 \(5869\): 84-6.](#)
3. Johnstone, M. *et al.* (1997) The neurofilament antibody RT97 recognises a developmentally regulated phosphorylation epitope on microtubule-associated protein 1B. [J Anat. 191 \( Pt 2\): 229-44.](#)
4. Tonge, D.A. *et al.* (1996) Expression of a developmentally regulated, phosphorylated isoform of microtubule-associated protein 1B in sprouting and regenerating axons in vitro. [Neuroscience. 73 \(2\): 541-51.](#)
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7. Logan, A. *et al.* (2006) Neurotrophic factor synergy is required for neuronal survival and disinhibited axon regeneration after CNS injury. [Brain. 129: 490-502.](#)
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18. Rovere, G. *et al.* (2015) Comparison of Retinal Nerve Fiber Layer Thinning and Retinal Ganglion Cell Loss After Optic Nerve Transection in Adult Albino Rats. [Invest Ophthalmol Vis Sci. 56 \(8\): 4487-98.](#)
19. Wang, J. *et al.* (2017) MicroRNA regulation in an animal model of acute ocular hypertension. [Acta Ophthalmol. 95 \(1\): e10-e21.](#)
20. Vidal-Sanz, M. *et al.* (2015) Retinal neurodegeneration in experimental glaucoma. [Prog Brain Res. 220: 1-35.](#)

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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #10041 available at:  
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR8...)	<a href="#">DyLight®800</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®680](#),  
[DyLight®800](#), [FITC](#), [HRP](#)

## Recommended Negative Controls

### MOUSE IgG1 NEGATIVE CONTROL (MCA1209)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto:antibody_sales_de@bio-rad.com)

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