

## Datasheet: MCA1712

<b>Description:</b>	MOUSE ANTI GROWTH CONE
<b>Specificity:</b>	GROWTH CONE
<b>Other names:</b>	40S ribosomal protein SA
<b>Format:</b>	S/N
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	2G13
<b>Isotype:</b>	IgM
<b>Quantity:</b>	2 ml

## 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	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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

Chicken

### Species Cross Reactivity

Reacts with: Rat, Mouse

**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

Tissue culture supernatant - liquid

### Preparation

Tissue culture supernatant containing 0.2M Tris/HCl pH7.4 and 5-10% foetal calf serum

<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Immunogen</b>	Embryonic chick tectal membranes.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P50890</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">395181</a>    RPSA    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	LAMR1
<b>RRID</b>	AB_322754
<b>Fusion Partners</b>	Spleen cells from immunized mice were fused with cells of the mouse NS1 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Growth Cone antibody, clone 2G13</b> recognizes a protein originally termed 2G13P, localized to growth cones. Subsequent investigation has identified this protein to be 40S ribosomal protein SA, also known as 37 kDa laminin receptor precursor or Laminin receptor 1 (<a href="#">Baloui et al. 2004</a>). 40S ribosomal protein SA is a 296 amino acid ~37 kDa membrane, cytoplasmic and nuclear protein required for the assembly and/or stability of the 40S ribosomal subunit.. In vertebrate evolution the molecule has acquired a secondary function as a laminin receptor (<a href="#">UniProt: P50890</a>). In growth cones expression is notable particularly in filopodia and lamellipodia in developing rat CNS and embryonic neurons in culture (<a href="#">Stettler et al. 1999</a>).</p> <p>40S ribosomal protein SA interacts with the filamentous actin cytoskeleton and therefore may be involved in growth cone motility (<a href="#">Stettler et al. 1999</a>). Mouse anti Growth Cone antibody, clone 2G13 has been used for the detection of growth cones by immunohistochemistry and identification of 40S ribosomal protein SA by western blotting in chicken and rat samples (<a href="#">Baloui et al. 2004</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Penkowa, M. <i>et al.</i> (2003) Metallothionein-I overexpression alters brain inflammation and stimulates brain repair in transgenic mice with astrocyte-targeted interleukin-6 expression. <a href="#">Glia. 42 (3): 287-306.</a></li> <li>2. Baloui, H. <i>et al.</i> (2004) Cellular prion protein/laminin receptor: distribution in adult central nervous system and characterization of an isoform associated with a subtype of cortical neurons. <a href="#">Eur J Neurosci. 20 (10): 2605-16.</a></li> <li>3. Espejo, C. <i>et al.</i> (2005) Time-course expression of CNS inflammatory, neurodegenerative tissue repair markers and metallothioneins during experimental autoimmune encephalomyelitis. <a href="#">Neuroscience. 132(4):1135-49.</a></li> <li>4. Kim, S.R. <i>et al.</i> (2011) Dopaminergic pathway reconstruction by Akt/Rheb-induced axon regeneration. <a href="#">Ann Neurol. 70: 110-20.</a></li> <li>5. Nordman, J.C. &amp; Kabbani, N. (2012) An interaction between α7 nicotinic receptors and a G-protein pathway complex regulates neurite growth in neural cells. <a href="#">J Cell Sci. 125 (Pt</a></li> </ol>

[22\): 5502-13.](#)

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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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10053 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1712>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgM (STAR138...) [Alk. Phos.](#)

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)

### Recommended Useful Reagents

[MOUSE ANTI CHICKEN CD184 / CXCR4 \(MCA6012GA\)](#)

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

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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](https://bio-rad-antibodies.com/datasheets)  
'M418594:230427'

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