Datasheet: MCA1712

Description:	MOUSE ANTI GROWTH CONE
Specificity:	GROWTH CONE
Format:	S/N
Product Type:	Monoclonal Antibody
Clone:	2G13
Isotype:	IgM
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry		▪		
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			
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. Clone 2G13 has also been reported to work in Western Blotting.

Target Species

Chicken

Species Cross Reactivity

Reacts with: Rat, Mouse
N.B. Antibody reactivity and working conditions may vary between species.

Product Form

Tissue Culture Supernatant - liquid

Preparation

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

Preservative Stabilisers

0.09% Sodium Azide

Immunogen

Embryonic chick tectal membranes.

External Database Links

UniProt:
P50890 Related reagents

Entrez Gene:
395181 RPSA Related reagents

Synonyms	LAMR1
Fusion Partners	Spleen cells from immunised mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	**Mouse anti Growth Cone antibody, clone 2G13** recognizes a protein originally termed 2G13P which is 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 (Baloui *et al.* 2004). 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 (UniProt: P50890). In growth cones expression is notable particularly in filopodia and lamellipodia in developing rat CNS and embryonic neurons in culture (Stettler *et al.* 1999). 40S ribosomal protein SA interacts with the filamentous actin cytoskeleton and therefore may be involved in growth cone motility (Stettler *et al.* 1999). 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 (Baloui *et al.* 2004).
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.
References	1. Stettler, O. *et al.* (1999) Monoclonal antibody 2G13, a new axonal growth cone marker. J Neurocytol. 28 (12): 1035-44. 2. Baloui, H. *et al.* (2004) Cellular prion protein/laminin receptor: distribution in adult central nervous system and characterization of an isoform associated with a subtype of cortical neurons. Eur J Neurosci. 20 (10): 2605-16. 3. Espejo, C. *et al.* (2005) Time-course expression of CNS inflammatory, neurodegenerative tissue repair markers and metallothioneins during experimental autoimmune encephalomyelitis. Neuroscience. 132(4):1135-49. 4. Penkowa, M. *et al.* (2003) Metallothionein-I overexpression alters brain inflammation and stimulates brain repair in transgenic mice with astrocyte-targeted interleukin-6 expression. Glia. 42 (3): 287-306. 5. Kim, S.R. *et al.* (2011) Dopaminergic pathway reconstruction by Akt/Rheb-induced axon regeneration. Ann Neurol. 70: 110-20. 6. Nordman, J.C. & Kabbani, N. (2012) An interaction between α7 nicotinic receptors and a G-protein pathway complex regulates neurite growth in neural cells. J Cell Sci. 125 (Pt 22): 5502-13.
Storage	Store at +4^{o}C or at -20^{o}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.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10053 available at: 10053: https://www.bio-rad-antibodies.com/uploads/MSDS/10053.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgM (STAR86...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgM (STAR138...)	Alk. Phos.
Human Anti Mouse IgM (HCA040...)	FITC, HRP

Recommended Useful Reagents

MOUSE ANTI CHICKEN CD184 / CXCR4 (MCA6012GA)

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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Printed on 01 Aug 2018