

## Datasheet: MCA2410GA

**BATCH NUMBER 1702**

<b>Description:</b>	MOUSE ANTI MOUSE NOTCH 1
<b>Specificity:</b>	NOTCH 1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	mN1A
<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 (1)	▪			
Immunohistology - Frozen	▪			1/50 - 1/200
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. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1)Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

<b>Target Species</b>	Mouse
<b>Species Cross Reactivity</b>	<p>Reacts with: Human</p> <p><b>N.B.</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.</p>
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture

supernatant

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**Buffer Solution** Phosphate buffered saline

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**Preservative Stabilisers** 0.09% Sodium Azide

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**Carrier Free** Yes

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**Approx. Protein Concentrations** IgG concentration 1.0 mg/ml

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**Immunogen** Synthetic peptide corresponding to cdc10-NCR region within mouse Notch1.

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**External Database Links**

**UniProt:**

[Q01705](#)

[Related reagents](#)

**Entrez Gene:**

[18128](#)

Notch1

[Related reagents](#)

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**Synonyms** Motch

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**RRID** AB\_808683

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**Fusion Partners** Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.

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**Specificity** **Mouse anti Mouse Notch 1 antibody, clone mN1A** recognizes Notch 1, one of the four major transmembrane receptors (Notch 1-4) of the Notch signaling pathway, which is activated through binding to DSL domain-containing membrane-bound specific ligands.

The Notch signaling pathway is an evolutionarily conserved pathway in multi-cellular organisms, which is vital for cell-cell communication, important during fundamental developmental and physiological processes, including regulation of cell fate decisions during neuronal, cardiac and endocrine development, stem cell haematopoiesis, thymic T-cell development, and both tumour progression and suppression.

Ligation of Notch receptors by their specific ligands, Jagged1 (CD339), Jagged2, Delta like-1 (DLL1), DLL3 and DLL4, on physically adjacent signal receiving cells, induces proteolysis of the receptors by ADAM-family metalloproteases and gamma-secretase complex, within the transmembrane domain, releasing the Notch intracellular domain (NICD) to translocate to the nucleus. Subsequent signal transduction then occurs through either the CSL-NICD-Mastermind complex cascade (canonical pathway), or NF-kappaB-NICD and CSL-NICD-Deltex complex signaling cascades (non-canonical pathway). The canonical pathway inhibits the differentiation of stem cells or progenitor cells, whilst the non-canonical pathway promotes differentiation.

Notch 1 is expressed in a range of cells including haematopoietic cells in mouse foetal

liver, adult thymus and bone marrow. Notch 1 signaling plays a role in follicular differentiation, tissue homeostasis, and in both CD4+ and CD8+ cell maturation in the thymus. Studies have also implicated Notch 1 in the regulation of lymphopoiesis, myelopoiesis, and neurogenesis.

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**Flow Cytometry** Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

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**References**

1. Ray, W.J. *et al.* (1999) Evidence for a physical interaction between presenilin and Notch. [Proc Natl Acad Sci U S A. 96 \(6\): 3263-8.](#)
2. Huppert, S.S. *et al.* (2000) Embryonic lethality in mice homozygous for a processing-deficient allele of Notch1. [Nature. 405 \(6789\): 966-70.](#)
3. Espinosa, L. *et al.* (2002) p65-NFkappaB synergizes with Notch to activate transcription by triggering cytoplasmic translocation of the nuclear receptor corepressor N-CoR. [J Cell Sci. 115 \(Pt 6\): 1295-303.](#)
4. Ren, M. and Cowell, J.K. (2011) Constitutive Notch pathway activation in murine ZMYM2-FGFR1-induced T-cell lymphomas associated with atypical myeloproliferative disease. [Blood. 117: 6837-47.](#)

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**Further Reading**

1. Kang-decker, N. *et al.* (2004) Loss of CBP causes T cell lymphomagenesis in synergy with p27Kip1 insufficiency. [Cancer Cell. 5 \(2\): 177-89.](#)

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**Storage**

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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2410GA>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</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 (STAR77...)	<a href="#">HRP</a>

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)

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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)

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