Datasheet: MCA2410A647

Description:	MOUSE ANTI MOUSE NOTCH 1:Alexa Fluor® 647
Specificity:	NOTCH 1
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	mN1A
Isotype:	IgG1
Quantity:	100 TESTS/1ml

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 (1)	▪			Neat

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.

(1) **Membrane permeabilization is required for this application. Bio-Rad recommends the use of Leucoperm™ (product code BUF09) for this purpose.**

Target Species

Mouse

Species Cross Reactivity

Reacts 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 conjugated to Alexa Fluor® 647 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Synthetic peptide corresponding to cdc10-NCR region within mouse Notch1.
External Database Links	**UniProt:** Q01705 Related reagents **Entrez Gene:** 18128 Notch1 Related reagents
Synonyms	Motch
RRID	AB_2153358
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
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.

Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul.
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.
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.
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. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

MOUSE SEROBLOCK FcR (BUF041A)
MOUSE SEROBLOCK FcR (BUF041B)

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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