

Datasheet: MCA5702

Description:	HAMSTER ANTI MOUSE NOTCH 2
Specificity:	NOTCH 2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	HMN2-35
Isotype:	IgG
Quantity:	0.25 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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			

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	Mouse
Species Cross Reactivity	Reacts with: Rat N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Mouse Notch 2-Fc fusion protein.
External Database Links	UniProt: O35516 Related reagents Q9QW30 Related reagents

Entrez Gene:

[18129](#) Notch2 [Related reagents](#)
[29492](#) Notch2 [Related reagents](#)

Fusion Partners	Spleen cells from immunised Armenian hamsters were fused with cells of the P3U1 myeloma cell line.
------------------------	--

Specificity	<p>Hamster anti Mouse Notch 2 antibody, clone HMN2-35 recognizes Notch 2, 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.</p> <p>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 hematopoiesis, thymic T-cell development, and both tumor progression and suppression.</p> <p>Ligation of Notch receptors by their specific ligands, Jagged1 (CD339), Jagged2, Delta-like protein 1 (DLL1), DLL3 and DLL4, on physically adjacent signal receiving cells, induces proteolysis of the receptors by ADAM-family metalloproteases and the 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.</p> <p>Signaling through Notch 2 has been implicated in the development of marginal zone B cells (MZB), the sensitization of endothelial cells to apoptosis, and the regulation of the expression of CD23 in B-cell lymphocytic leukemia (B-CLL). Studies have also shown a correlation between a decrease in Notch 2 expression and an increase in grade of human breast cancer.</p> <p>Hamster anti Mouse Notch 2 antibody, clone HMN2-35 has been shown to cross-react with rat mast cell line RBL-2H3 and Y3 myeloma cells, in flow cytometry.</p>
--------------------	--

Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
-----------------------	---

References	<ol style="list-style-type: none">1. Moriyama, Y. <i>et al.</i> (2008) Delta-like 1 is essential for the maintenance of marginal zone B cells in normal mice but not in autoimmune mice. Int Immunol. 20 (6): 763-73.2. Sekine, C. <i>et al.</i> (2009) Differential regulation of splenic CD8- dendritic cells and marginal zone B cells by Notch ligands. Int Immunol. 21 (3): 295-301.3. Gibb, D.R. <i>et al.</i> (2010) ADAM10 is essential for Notch2-dependent marginal zone B cell development and CD23 cleavage <i>in vivo</i>. J Exp Med. 207 (3): 623-35.4. Sakata-Yanagimoto, M. <i>et al.</i> (2011) Notch2 signaling is required for proper mast cell distribution and mucosal immunity in the intestine. Blood. 117 (1): 128-34.
-------------------	---

Further Reading	<ol style="list-style-type: none">1. Bray, S.J. (2006) Notch signalling: a simple pathway becomes complex. Nat Rev Mol Cell Biol. 7 (9): 678-89.2. Iso, T. <i>et al.</i> (2003) Notch signaling in vascular development. Arterioscler Thromb Vasc Biol. 23 (4): 543-53.3. Hu, X. <i>et al.</i> (2008) Integrated regulation of Toll-like receptor responses by Notch and interferon-gamma pathways. Immunity. 29 (5): 691-703.
------------------------	--

4. Hoyne, G.F. *et al.* (2001) Notch signalling in the regulation of peripheral immunity. [Immunol Rev. 182: 215-27.](#)

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.
Shelf Life	18 months from date of despatch.
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 Secondary Antibodies

Goat Anti Hamster IgG (STAR104...) [DyLight®549](#), [DyLight®649](#), [DyLight®800](#),
[FITC](#)

Goat Anti Hamster IgG (STAR79...) [Biotin](#), [FITC](#), [HRP](#)

Recommended Negative Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL \(MCA2356\)](#)

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
----------------------------------	---	------------------	---	---------------	---

'M293617:160901'

Printed on 01 May 2018

© 2018 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)