

Datasheet: MCA5704GA

Description:	HAMSTER ANTI MOUSE NOTCH 4
Specificity:	NOTCH 4
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	HMN4-14
Isotype:	IgG
Quantity:	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.

	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
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 4-Fc fusion protein.
External Database Links	<p>UniProt: P31695 Related reagents</p> <p>Entrez Gene: 18132 Notch4 Related reagents</p>
Synonyms	Int3, Int-3

Fusion Partners	Spleen cells from immunised Armenian hamsters were fused with cells of the P3U1 myeloma cell line.
Specificity	<p>Hamster anti Mouse Notch 4 antibody, clone HMN4-14 recognizes mouse Notch 4, 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>Notch 4 is expressed by endothelial cells, macrophages, and CD8+ splenic dendritic cells, and Notch 4 signaling may play a crucial role in vasculogenesis and angiogenesis. In mice, a truncated constitutively active form of Notch 4, designated Int3, also exists, as a result of the mouse mammary tumor virus (MMTV).</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. Sekine, C. <i>et al.</i> (2012) Differential regulation of osteoclastogenesis by Notch2/Delta-like 1 and Notch1/Jagged1 axes. Arthritis Res Ther. 14: R45.
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: 691-703 4. Hoyne, G.F. <i>et al.</i> (2001) Notch signalling in the regulation of peripheral immunity. Immunol Rev. 182: 215-27.
Storage	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>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.</p>
Shelf Life	18 months from date of despatch.

Health And Safety Information Material Safety Datasheet documentation available at:
Material Safety Datasheet Documentation #10040 available at:
<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 \(MCA2356\)](#)

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