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Product datasheet for SM2297PS

NOTCH1 Mouse Monoclonal Antibody [Clone ID: mN1A]

Product data:

Product Type:	Primary Antibodies
Clone Name:	mN1A
Applications:	FC, IHC, WB
Recommended Dilution:	**Western Blot.** **Flow Cytometry:** Membrane permeabilisation is required for this application. **Immunohistochemistry on Frozen Sections:** 1/50-1/200.
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Synthetic peptide corresponding to cdc10-NCR region within mouse Notch1. Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
Specificity:	This antibody is specific for Notch1, a single transmembrane receptor which is expressed in a range of cells including hematopoietic cells in mouse fetal liver, adult thymus and bone marrow.
Formulation:	PBS, pH 7.4 containing 0.09% Sodium Azide as preservataive. State: Purified State: Liquid purified IgG fraction.
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	notch 1
Database Link:	Entrez Gene 4851 Human P46531

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Background:

The Notch signalling 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 signalling 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 signalling 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 lymphopoieisis, myelopoiesis, and neurogenesis.

Synonyms:

Notch 1, hN1, TAN1