Qty: 100µg/200µL

Mouse anti-Notch1

Catalog No. 41-3500

Lot No.

Mouse anti-Notch1

FORM
This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: mN1A **ISOTYPE:** Mouse IgG1

IMMUNOGEN
Recombinant protein derived from the intracellular domain of mouse Notch1, which is 96% homologous with rat, 94% with human and chimpanzee, and 93% with bovine

SPECIFICITY
This antibody is specific for the Notch1 (neurogenic locus notch homolog protein1, Motch A, mT14, p300) protein. On Western blots of cells expressing part of the intracellular domain of Notch1, it identifies the target band at ~65 kDa. This antibody does not cross-react with Notch 2,3 and 4 as assessed by Western blot analysis.

REACTIVITY
Reactivity has been confirmed with Jurkat and transfected mouse 32D cell lysates by Western blotting and immunoprecipitation, with activated T cells by flow cytometry, with stroma cells by immunohiostochemistry. Based on amino acid sequence homology, reactivity with rat, chimpanzee and bovine is also expected.

Sample	Western Blotting	Flow Cytometry
Human	+++	ND
Mouse	+++	++ (1)
Rat	ND	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE
Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 2-5 µg/mL
Flow Cytometry: 1µg/reaction

STORAGE
Store at 2-8°C for up to one month. Store at –20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

BACKGROUND

The process of hematopoiesis has many similarities to other developmental processes in which pluripotent stem cells give rise to progeny that undergo proliferation and maturation to result in mature cells of different lineages. Members of the Notch family are known to be general mediators of cell fate determination in many of these developmental processes and have highly conserved structural and functional features both in invertebrate and vertebrate systems.[2] The expression of an activated form of mouse Notch1 inhibits granulocytic differentiation of 32D myeloid progenitors, supporting the view that Notch is capable of influencing cell fate determination in hematopoietic cells.[3] Scientific findings support alternative and distinct roles for Notch ligands during the angiogenic process.[4]

Notch signaling has been implicated in late stages of differentiation, but the commitment switch remains unknown. With loss and gain-of-function studies that active Notch intracellular domain (NICD) and its obligate canonical signaling partner RBP-J act at the basal/suprabasal juncture to induce spinous and down-regulate basal fate. Spinous layers are absent in RBP-J conditional null epidermis and expanded when Notch1 signaling is elevated transgenically in epidermis.[5]

REFERENCES

1. Calvi LM, et al. *Nature* 425(23):841-846, 2003.
2. Milner LA, et al. *Proc Natl Acad Sci U S A* 12;93(23):13014-9, 1996.
3. Schouwey K, et al. *Dev Dyn* 236(1):282-9, 2007.
4. Hofmann JJ, et al. *Gene Expr Patterns* 2006. [Epub ahead of print]
5. Blanpain C, et al. *Genes Dev* 1;20(21):3022-35. 2006.

RELATED PRODUCTS

Product	*Conjugate*	*Cat. No.*
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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