
Anti-Mouse Delta-like 4 Functional Grade Purified

Catalog Number: 16-5948

Also known as: DLL4

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-Mouse Delta-like 4 Functional Grade Purified
Catalog Number: 16-5948
Clone: HMD4-1
Concentration: 1 mg/mL
Host/Isotype: Armenian Hamster IgG
Endotoxin: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

REF



Formulation: aqueous buffer, no sodium azide
Temperature Limitation: Store at 2-8°C.

Batch Code: Refer to vial

Use By: Refer to vial

Description

This HMD4-1 monoclonal antibody reacts with the extracellular domain of mouse Delta-like 4, one of five type I transmembrane proteins that serves as a Notch receptor ligand. Upon binding the Notch receptor (e.g., Notch 1-4), Delta-like 4 undergoes proteolytic cleavage, first by ADAM-family metalloproteases and then by gamma-secretase. The second cleavage event releases the Notch intracellular domain (NICD), which subsequently translocates into the nucleus, heterodimerizes with the DNA-binding protein RBP-J, recruits co-activator molecules, and ultimately activates transcription. Delta-like 4 is expressed by thymic lymphoid and stromal cells, as well as macrophages and dendritic cells in the spleen. This molecule is also expressed in non-immune cells, including vascular smooth muscle and endothelial cells. Delta-like 4 plays a role in T cell development, regulation of experimental autoimmune encephalomyelitis, and the formation of mature vasculature.

The HMD4-1 monoclonal antibody has been reported to have blocking activity and crossreact to rat.

Applications Reported

The HMD4-1 antibody has been reported for use in functional assays.

Applications Tested

This HMD4-1 antibody has been tested by flow cytometric analysis of mouse Delta-like 4-transfected cells. This can be used at less than or equal to 0.06 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Bassil R, Zhu B, Lahoud Y, Riella LV, Yagita H, Elyaman W, Khoury SJ. Notch ligand delta-like 4 blockade alleviates experimental autoimmune encephalomyelitis by promoting regulatory T cell development. *J Immunol.* 2011 Sep 1;187(5):2322-8. (**HMD4-1**, FA)

Sekine C, Moriyama Y, Koyanagi A, Koyama N, Ogata H, Okumura K, Yagita H. Differential regulation of splenic CD8- dendritic cells and marginal zone B cells by Notch ligands. *Int Immunol.* 2009 Mar;21(3):295-301. (**HMD4-1**, FC, FA)

Hozumi K, Mailhos C, Negishi N, Hirano K, Yahata T, Ando K, Zuklys S, Holländer GA, Shima DT, Habu S. Delta-like 4 is indispensable in thymic environment specific for T cell development. *J Exp Med.* 2008 Oct 27;205(11):2507-13.

Lobov IB, Renard RA, Papadopoulos N, Gale NW, Thurston G, Yancopoulos GD, Wiegand SJ. Delta-like ligand 4 (Dll4) is induced by VEGF as a negative regulator of angiogenic sprouting. *Proc Natl Acad Sci U S A.* 2007 Feb 27;104(9):3219-24.

Related Products

16-4888 Armenian Hamster IgG Isotype Control Functional Grade Purified (eBio299Arm)

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