

## Anti-Mouse DLL1 (delta-like 1) Functional Grade Purified

Catalog Number: 16-5767

Also Known As:DL1

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

### Product Information

**Contents:** Anti-Mouse DLL1 (delta-like 1) Functional Grade Purified

**REF** Catalog Number: 16-5767

**Clone:** HMD1-5

**Concentration:** 1 mg/mL

**Host/Isotype:** Armenian Hamster IgG

**Handling Conditions:** Use in sterile environment.

**Endotoxin Level:** Less than 0.001 ng/ug antibody, as determined by the LAL assay.

**Formulation:** aqueous buffer, no sodium azide



**Temperature Limitation:** Store at 2-8°C.



**Batch Code:** Refer to Vial



**Use By:** Refer to Vial

### Description

The HMD1-5 monoclonal antibody reacts with mouse Delta-like 1, 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 1 undergoes proteolytic cleavage, first by ADAM-family metalloproteases and then by  $\gamma$ -secretase. The second cleavage event releases an intracellular fragment whose biological function remains controversial. Delta-like 1 is expressed by thymic stromal cells, as well as on macrophages, dendritic cells, and stromal cells in the spleen. This protein is also expressed in nonhematopoietic tissues such as the lung and brain. Delta-like 1 has been linked to B cell development and differentiation, especially marginal zone and plasma cells, regulation of splenic dendritic cells, and leukemogenesis.

This monoclonal antibody has been reported to have neutralizing activity.

### Applications Reported

This HMD1-5 antibody has been reported for use in functional assays.

### Applications Tested

This HMD1-5 antibody has been tested by flow cytometric analysis of Delta-like 1-transfected CHO cells. This can be used at less than or equal to 0.5  $\mu$ g per test. A test is defined as the amount (ug) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

### References

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 Jan 30. (**HMD1-5**, FC, Pubmed)

Moriyama Y, Sekine C, Koyanagi A, Koyama N, Ogata H, Chiba S, Hirose S, Okumura K, Yagita H. Delta-like 1 is essential for the maintenance of marginal zone B cells in normal mice but not in autoimmune mice. *Int Immunol.* 2008 Jun;20(6):763-73. (**HMD1-5**, FC, Pubmed)

Mohtashami M, Zúñiga-Pflücker JC. Three-dimensional architecture of the thymus is required to maintain delta-like expression necessary for inducing T cell development. *J Immunol.* 2006 Jan 15;176(2):730-4.

Hozumi K, Negishi N, Suzuki D, Abe N, Sotomaru Y, Tamaoki N, Mailhos C, Ish-Horowicz D, Habu S, Owen MJ. Delta-like 1 is necessary for the generation of marginal zone B cells but not T cells in vivo. *Nat Immunol.* 2004 Jun;5(6):638-44.

### Related Products

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

