

## ARG23664 anti-DLL1 antibody [HMD1-5]

Package: 100 µg  
Store at: -20°C

### Summary

Product Description	<p>Hamster Monoclonal antibody [HMD1-5] recognizes DLL1.</p> <p>This product specifically recognizes Delta-like protein 1 (DLL1), one of the five major ligands of the Notch signaling pathway, which is activated through the binding of specific ligands to the Notch receptors Notch 1-4. 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. 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. DLL1 is widely expressed, and acts as a mediator of cell fate decisions during hematopoiesis, and may play a role in cell-to-cell communication in mammalian embryos. DLL1 plays an important role in B and T cell differentiation, in embryonic somite formation and patterning, and associates with the scaffolding protein MAGI1 at adherens junctions on neuronal processes. Signaling through DLL1 and Notch 2 has been implicated in the development of marginal zone B cells (MZB). Hamster anti Mouse Delta-Like Protein 1 antibody, clone HMD1-5 blocks binding of Notch2 to Dll1 (Moriyama et al. 2008)</p>
Tested Reactivity	Ms, Rat
Tested Application	FACS, FuncSt, IHC-Fr
Host	Hamster
Clonality	Monoclonal
Clone	HMD1-5
Isotype	IgG
Target Name	DLL1
Species	Mouse
Immunogen	DLL1-expressing CHO cells.
Conjugation	Un-conjugated
Alternate Names	DELTA1; H-Delta-1; Drosophila Delta homolog 1; Delta-like protein 1; DL1; Delta1; Delta

### Application Instructions

Application table	Application	Dilution
	FACS	Assay-dependent
	FuncSt	Assay-dependent
	IHC-Fr	Assay-dependent
Application Note	Functional studies: This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays.	

FACS: Use 10 µl of the suggested working dilution to label 10<sup>6</sup> cells in 100 µl.

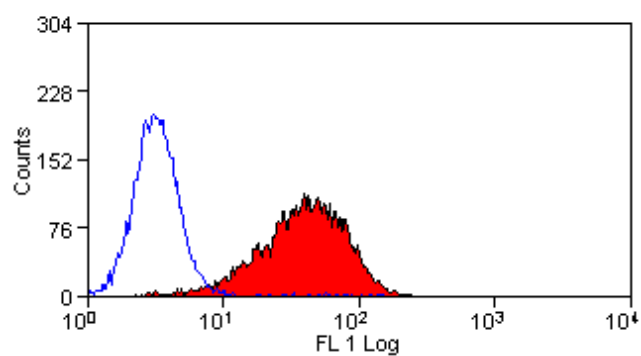
\* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

## Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% Sodium azide.
Preservative	0.09% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

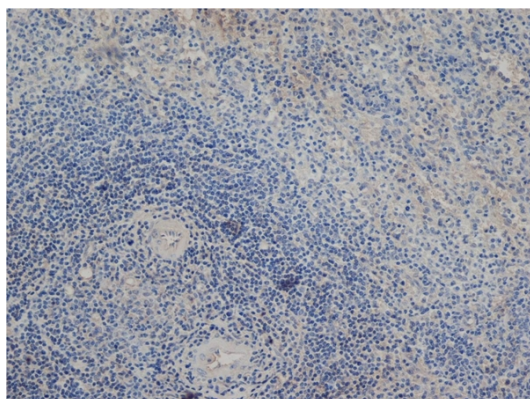
## Bioinformation

Gene Symbol	DLL1
Gene Full Name	delta-like 1 (Drosophila)
Background	DLL1 is a human homolog of the Notch Delta ligand and is a member of the delta/serrate/jagged family. It plays a role in mediating cell fate decisions during hematopoiesis. It may play a role in cell-to-cell communication. [provided by RefSeq, Jul 2008]
Function	Acts as a ligand for Notch receptors. Blocks the differentiation of progenitor cells into the B-cell lineage while promoting the emergence of a population of cells with the characteristics of a T-cell/NK-cell precursor. [UniProt]
Calculated Mw	78 kDa
PTM	<p>Ubiquitinated by MIB (MIB1 or MIB2), leading to its endocytosis and subsequent degradation (By similarity). Ubiquitinated; promotes recycling back to the plasma membrane and confers a strong affinity for NOTCH1. Multi-ubiquitination of LYS-613 by MIB1 promotes both cis and trans-interaction with NOTCH1, as well as activation of Notch signaling. Ubiquitinated by NEURL1B (By similarity).</p> <p>Phosphorylated in a membrane association-dependent manner. Phosphorylation at Ser-697 requires the presence of Ser-694, whereas phosphorylation at Ser-694 occurs independently of the other site. Phosphorylation is required for full ligand activity in vitro and affects surface presentation, ectodomain shedding, and endocytosis.</p> <p>O-fucosylated. Can be elongated to a disaccharide by MFNG. [UniProt]</p>



ARG23664 anti-DLL1 antibody [HMD1-5] FACS image

Flow Cytometry: Mouse Delta like protein 1 transfected cells stained with ARG23664 anti-DLL1 antibody [HMD1-5].



ARG23664 anti-DLL1 antibody [HMD1-5] IHC-P image

Immunohistochemistry: Paraffin-embedded Human spleen stained with ARG23664 anti-DLL1 antibody [HMD1-5] followed by Goat anti-Hamster IgG (HRP).