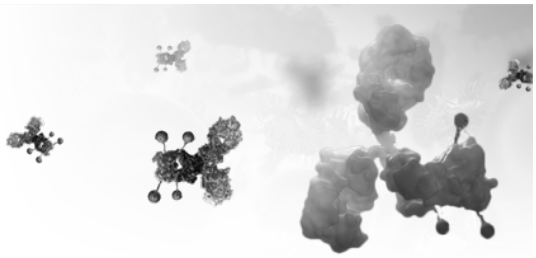

Anti-DLL4 monoclonal antibody, clone HMD4-2 (CABT-50490HM)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Hamster anti Mouse Delta-Like Protein 4 antibody, clone HMD4-2 specifically recognizes mouse Delta-like protein 4 (DLL4), one of the five major ligands of the Notch signalling pathway, which is activated through the binding of specific ligands to the Notch receptors Notch 1-4. 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. DLL4 is expressed by vascular endothelium, and plays a vital role in embryonic vascular development. DLL4 signalling has been shown to play a role in the angiogenesis of clear-cell renal tumours, and pancreatic, bladder and colonic cancer. Studies have shown that DLL4 expression in endothelium cells, can be up-regulated by vascular endothelial growth factor (VEGF) and basic-FGF, and by HIF1 alpha, and that blockade of DLL4 inhibits tumour growth by promoting non-productive angiogenesis. Hamster anti Mouse Delta-Like Protein 4 ant Flow Cytometry Use 10ul of the suggested working dilution to label 1x106 cells in 100ul.
Specificity	DLL4
Immunogen	Recombinant mouse DLL4.
Isotype	IgG

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Source/Host	Hamster
Species Reactivity	Mouse
Clone	HMD4-2
Conjugate	Unconjugated
Applications	IHC-Fr; FC; FA; IHC-P
Format	Purified IgG - liquid
Size	250 µg
Preservative	See individual product datasheet
Storage	in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

GENE INFORMATION

Gene Name	Dll4 delta-like 4 (Drosophila) [Mus musculus (house mouse)]
Official Symbol	DLL4
Synonyms	DLL4; delta-like 4 (Drosophila); Delta4; delta-like protein 4; drosophila Delta homolog 4;
Entrez Gene ID	54485
Protein Refseq	NP_062327
UniProt ID	Q9JI71
Chromosome Location	2; 2 E3
Pathway	Activated NOTCH1 Transmits Signal to the Nucleus; Constitutive Signaling by NOTCH1 HD Domain Mutants; Constitutive Signaling by NOTCH1 HD+PEST Domain Mutants; Constitutive Signaling by NOTCH1 PEST Domain Mutants; Constitutive Signaling by NOTCH1 t(7;9)(NOTCH1:M1580_K2555) Translocation Mutant; Delta-Notch Signaling Pathway; Disease; FBXW7 Mutants and NOTCH1 in Cancer;
Function	Notch binding; calcium ion binding; protein binding;

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