Datasheet: MCA5706PE

BATCH NUMBER 164523

Description:	HAMSTER ANTI MOUSE DELTA-LIKE PROTEIN 4:RPE
Specificity:	DELTA-LIKE PROTEIN 4
Other names:	DLL4
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	HMD4-2
Isotype:	IgG
Quantity:	100 TESTS

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species

Mouse

Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1.0 ml distilled water
Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin 5% Sucrose
Immunogen	Recombinant mouse DLL4.
External Database Links	**UniProt:** Q9JI71 Related reagents **Entrez Gene:** 54485 Dll4 Related reagents
Fusion Partners	Spleen cells from immunised Armenian hamsters were fused with cells of the P3U1 myeloma cell line.
Specificity	**Hamster anti Mouse Delta-Like Protein 4 antibody, clone HMD4-2** recognizes mouse Delta-like protein 4 (DLL4), one of the five major ligands of the Notch signaling pathway, activated through the binding of specific ligands to the Notch receptors Notch 1-4. DLL4 is expressed by vascular endothelium, and plays a vital role in embryonic vascular development. DLL4 signaling has been shown to play a role in the angiogenesis of clear-cell renal tumors, and pancreatic, bladder and colonic cancer. 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 tumor growth by promoting non-productive angiogenesis.
Flow Cytometry	Use 10ul of the suggested working dilution to label $1x10^6$ cells in 100ul.
References	1. Moriyama, Y. *et al.* (2008) Delta-like 1 is essential for the maintenance of marginal zone B cells in normal mice but not in autoimmune mice. Int Immunol. 20 (6): 763-73. 2. Sekine, C. *et al.* (2009) Differential regulation of splenic CD8- dendritic cells and marginal zone B cells by Notch ligands. Int Immunol. 21 (3): 295-301. 3. Yamanda, S. *et al.* (2009) Role of ephrinB2 in nonproductive angiogenesis induced by Delta-like 4 blockade. Blood. 113 (15): 3631-9. 4. Sekine, C. *et al.* (2012) Differential regulation of osteoclastogenesis by Notch2/Delta-like 1 and Notch1/Jagged1 axes. Arthritis Res Ther. 14: R45.
Further Reading	1. Bray, S.J. (2006) Notch signalling: a simple pathway becomes complex. Nat Rev Mol Cell Biol. 7 (9): 678-89. 2. Iso, T. *et al.* (2003) Notch signaling in vascular development. Arterioscler Thromb Vasc Biol. 23 (4): 543-53. 3. Hu, X. *et al.* (2008) Integrated regulation of Toll-like receptor responses by Notch and interferon-gamma pathways. Immunity. 29 (5): 691-703. 4. Hoyne, G.F. *et al.* (2001) Notch signalling in the regulation of peripheral immunity. Immunol Rev. 182: 215-27.
Storage	Prior to reconstitution store at +4°C.

	After reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA5706PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

HAMSTER (ARMENIAN) IgG NEGATIVE CONTROL:RPE (MCA2356PE)

Recommended Useful Reagents

MOUSE SEROBLOCK FcR (BUF041A)
MOUSE SEROBLOCK FcR (BUF041B)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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