

# Datasheet: MCA5706PE

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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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.

Max Ex/Em	Fluorophore Excitation Max (nm) Emission Max (nm)
	bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.
	Care should be taken during reconstitution as the protein may appear as a film at the
Reconstitution	Reconstitute with 1.0 ml distilled water
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized
Target Species	Mouse

IVIAX EX/EIII	riuorophore	Excitation wax (IIIII)	EIIIISSIOII WAX (III	II <i>)</i>
	RPE 488nm laser	496	578	
Preparation	Purified IgG prepared supernatant	by affinity chromatogi	aphy on Protein G	G from tissue culture
Buffer Solution	Phosphate buffered sa	aline		
Preservative	0.09% Sodium Azide			

#### **Stabilisers**

1% Bovine Serum Albumin

5% Sucrose

### Immunogen

Recombinant mouse DLL4.

# External Database

Links

#### **UniProt:**

Q9JI71 Related reagents

#### **Entrez Gene:**

54485 DII4 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<sup>6</sup> cells in 100ul.

#### References

- 1. Sekine, C. *et al.* (2009) Differential regulation of splenic CD8- dendritic cells and marginal zone B cells by Notch ligands. <u>Int Immunol. 21 (3): 295-301.</u>
- 2. Yamanda, S. *et al.* (2009) Role of ephrinB2 in nonproductive angiogenesis induced by Delta-like 4 blockade. Blood. 113 (15): 3631-9.
- 3. Sekine, C. *et al.* (2012) Differential regulation of osteoclastogenesis by Notch2/Delta-like 1 and Notch1/Jagged1 axes. <u>Arthritis Res Ther. 14: R45.</u>

### **Further Reading**

- 1. Hoyne, G.F. *et al.* (2001) Notch signalling in the regulation of peripheral immunity. Immunol Rev. 182: 215-27.
- 2. Iso, T. *et al.* (2003) Notch signaling in vascular development. <u>Arterioscler Thromb Vasc Biol. 23 (4): 543-53.</u>
- 3. Bray, S.J. (2006) Notch signalling: a simple pathway becomes complex. <u>Nat Rev Mol Cell Biol.</u> 7 (9): 678-89.
- 4. Hu, X. *et al.* (2008) Integrated regulation of Toll-like receptor responses by Notch and interferon-gamma pathways. <u>Immunity</u>. 29 (5): 691-703.

## Storage

This product is shipped at ambient temperature.

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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA5706PE">https://www.bio-rad-antibodies.com/SDS/MCA5706PE</a>
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)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M441032:250523'

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