Datasheet: AHP1274

BATCH NUMBER 158037

Description:	RABBIT ANTI HUMAN DELTA-LIKE PROTEIN 4
Specificity:	DELTA-LIKE PROTEIN 4
Other names:	DLL4
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	50 µg

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			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin	▪			5 - 15ug/ml
ELISA	▪			1/3000 - 1/15000
Western Blotting	▪			1/300 - 1/1500
Functional Assays			▪	

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

Human

Species Cross Reactivity

Based on sequence similarity, is expected to react with:Mouse, Rat, Chimpanzee
N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Antiserum Preparation

Antisera to DLL4 were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG was prepared by affinity chromatography.

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3)
Approx. Protein Concentrations	IgG concentration 0.5 mg/ml
Immunogen	Synthetic peptide corresponding to the internal region of human DLL4.
External Database Links	**UniProt:** Q9NR61 Related reagents **Entrez Gene:** 54567 DLL4 Related reagents
RRID	AB_2092966
Specificity	**Rabbit anti Human Delta-like Protein 4 antibody** detects human Delta-like protein 4 (DLL4), also known as Delta-4. DLL4 is a 685 amino acid single pass type 1 transmembrane glycoprotein of ~72 kDa containing a single DSL domain and eight EGF-like domains. Human DLL4 is the homologue of the Drosophila delta protein, and functions as a transmembrane bound ligand to the Notch receptor, Notch1. DLL4 is expressed in the vasculature and plays a critical role in vascular development. It is induced by vascular endothelial growth factor (VEGF), as a negative feedback regulator to regulate angiogenic sprouting and promote the formation of a differentiated vascular network (Mailhos *et al.* 2001). DLL4 has been found to be strongly expressed in tumour vessels of primary renal tumours (Patel *et al.* 2005) and bladder cancer (Patel *et al.* 2006), and inhibition of DLL4 results in increased vascular proliferation but defective maturation. This in turn leads to a decrease in tumour growth, with no apparent toxicity (Ridgway *et al.* 2006). Expression of DLL4 in normal human dermis is low in foetal tissues, becomes more intense during early life (0-20 years) and gradually declines thereafter as shown by immunohistochemical studies on FFPE tissues using rabbit anti human DLL4 antibody (Gunin *et al.* 2014).
Histology Positive Control Tissue	Human ovary.
Western Blotting	AHP1274 detects a band of approximately 74kDa in pancreatic cell lysates.
References	1. You, C. *et al.* (2013) Loss of CCM3 impairs DLL4-Notch signalling: implication in endothelial angiogenesis and in inherited cerebral cavernous malformations. J Cell Mol Med. 17 (3): 407-18. 2. Villaamil, V.M. *et al.* (2012) Multiple biomarker tissue arrays: A computational approach to identifying protein-protein interactions in the EGFR/ERK signalling pathway. J Mol

Signal. 7: 14.
3. Gunin, A.G. *et al.* (2014) Age-related changes in angiogenesis in human dermis. Exp Gerontol. 55C: 143-51.
4. El Hindy, N. *et al.* (2013) Implications of Dll4-Notch signaling activation in primary glioblastoma multiforme. Neuro Oncol. 15: 1366-78.
5. Medina Villaamil, V. *et al.* (2012) Searching for Hif1-α interacting proteins in renal cell carcinoma. Clin Transl Oncol. 14: 698-708.
6. Gunin, A.G. *et al.* (2014) Age-related changes in angiogenesis in human dermis. Exp Gerontol. 55: 143-51.
7. Hjelmgren O *et al.* (2016) Increased Vascularization in the Vulnerable Upstream Regions of Both Early and Advanced Human Carotid Atherosclerosis. PLoS One. 11 (12): e0166918.

Further Reading	1. Thurston, G. *et al.* (2007) The Delta paradox: DLL4 blockade leads to more tumour vessels but less tumour growth. Nat Rev Cancer. 7 (5): 327-31.
Storage	Store at +4°C or at -20°C if preferred. 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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/AHP1274 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...)	FITC
Goat Anti Rabbit IgG (Fc) (STAR121...)	Biotin, FITC, HRP
Sheep Anti Rabbit IgG (STAR35...)	RPE
Goat Anti Rabbit IgG (H/L) (STAR124...)	HRP

Recommended Useful Reagents

ANTIGEN RETRIEVAL BUFFER, pH8.0 (BUF025A)
TidyBlot WESTERN BLOT DETECTION REAGENT:HRP (STAR209P)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com
Worldwide Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com
Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M363877:200529'

Printed on 19 Jan 2024