

Datasheet: AHP1274

**BATCH NUMBER 161005**

<b>Description:</b>	RABBIT ANTI HUMAN DELTA-LIKE PROTEIN 4
<b>Specificity:</b>	DELTA-LIKE PROTEIN 4
<b>Other names:</b>	DLL4
<b>Format:</b>	Purified
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	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](http://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.

<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5 mg/ml
<b>Immunogen</b>	Synthetic peptide corresponding to the internal region of human DLL4.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q9NR61</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">54567</a>    DLL4    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_2092966
<b>Specificity</b>	<p><b>Rabbit anti Human Delta-like Protein 4 antibody</b> 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 <a href="#">DSL</a> domain and eight <a href="#">EGF-like</a> domains. Human DLL4 is the homologue of the Drosophila delta protein, and functions as a transmembrane bound ligand to the Notch receptor, Notch1.</p> <p>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 (<a href="#">Mailhos <i>et al.</i> 2001</a>). DLL4 has been found to be strongly expressed in tumour vessels of primary renal tumours (<a href="#">Patel <i>et al.</i> 2005</a>) and bladder cancer (<a href="#">Patel <i>et al.</i> 2006</a>), 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 (<a href="#">Ridgway <i>et al.</i> 2006</a>).</p> <p>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 (<a href="#">Gunin <i>et al.</i> 2014</a>).</p>
<b>Histology Positive Control Tissue</b>	Human ovary.
<b>Western Blotting</b>	AHP1274 detects a band of approximately 74kDa in pancreatic cell lysates.
<b>References</b>	<ol style="list-style-type: none"> <li>You, C. <i>et al.</i> (2013) Loss of CCM3 impairs DLL4-Notch signalling: implication in endothelial angiogenesis and in inherited cerebral cavernous malformations. <a href="#">J Cell Mol Med. 17 (3): 407-18.</a></li> <li>Villaamil, V.M. <i>et al.</i> (2012) Multiple biomarker tissue arrays: A computational approach to identifying protein-protein interactions in the EGFR/ERK signalling pathway. <a href="#">J Mol</a></li> </ol>

[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- $\alpha$  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.](#)

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**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.](#)

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**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.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/AHP1274>  
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**Regulatory**

For research purposes only

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## 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 \(STAR209P\)](#)

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