

Datasheet: AAM81

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| Description: | RABBIT ANTI MOUSE DELTA-LIKE PROTEIN 3 |
| Specificity: | DELTA-LIKE PROTEIN 3 |
| Other names: | DLL3 |
| Format: | Purified |
| Product Type: | Polyclonal Antibody |
| Isotype: | Polyclonal IgG |
| Quantity: | 0.1 mg |

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 | | | ▪ | |
| ELISA | ▪ | | | |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | ▪ | | | 1/100 - 1/500 |

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

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| Target Species | Mouse |
| Species Cross Reactivity | Reacts weakly with: Human N.B. Antibody reactivity and working conditions may vary between species. |
| Product Form | Purified IgG - liquid |
| Antiserum Preparation | Antiserum to mouse DLL3 was raised by repeated immunisation of rabbits with protein peptide sequence. Purified IgG was prepared by affinity chromatography on Protein A. |
| Buffer Solution | Phosphate buffered saline. |
| Preservative Stabilisers | 0.09% Sodium Azide (NaN ₃) |
| Approx. Protein Concentrations | IgG concentration 1.0mg/ml |
| Immunogen | Keyhole Limpet Hemocyanin (KLH) conjugated peptide sequence CSPEHGYCEEPDE, |

corresponding to amino acids 222-234 of mouse DLL3.

**External Database
Links**

UniProt:

[O88516](#) [Related reagents](#)
[Q9NYJ7](#) [Related reagents](#)

Entrez Gene:

[13389](#) DII3 [Related reagents](#)
[10683](#) DLL3 [Related reagents](#)

Specificity

Rabbit anti-mouse Delta-like protein 3 recognises mouse Delta-like protein 3 (DLL3), 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.

DLL3 is predominantly expressed in the neuroectoderm and paraxial mesoderm during embryogenesis, where it plays a role in somite segmentation, during early development. DLL3 acts as a regulator of Notch 1, as an inhibitor of primary neurogenesis, and studies in mice have linked DLL3-Notch signalling with liver regeneration, and developmental defects. More than 25 mutations in the DLL3 gene are known to be responsible for the autosomal recessive skeletal malformation condition known as spondylocostal dysostosis type 1 (SCDO1), associated with vertebral and rib segmentation defects.

Western Blotting

AAM81 detects a prominent band of approximately 60-62kDa in mouse brain tissue, and weakly in human brain tissue.

Further Reading

1. Bray, S.J. (2006) Notch signalling: a simple pathway becomes complex. [Nat Rev Mol Cell Biol. 7 \(9\): 678-89.](#)

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.

Shelf Life

18 months from date of despatch.

Health And Safety Information Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)
Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®549](#), [DyLight®649](#),
[DyLight®680](#), [DyLight®800](#)

Recommended Useful Reagents

[TidyBlot™ WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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| 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 |
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