

Datasheet for 600-401-696S**DELTA-4 Antibody****Overview**

Description:	Anti-DELTA-4 (RABBIT) Antibody - 600-401-696S
Item No.:	600-401-696S
Size:	25 µL
Applications:	ELISA, IHC, WB, Other
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	DELTA-4 (also called delta 4 precursor, delta ligand 4 precursor, Delta-like protein 4, DLL4, Drosophila Delta homolog 4 and notch ligand DLL4 precursor) is a homolog of the Drosophila delta protein. The delta gene family encodes Notch ligands that are characterized by a DSL domain, EGF repeats, and a transmembrane domain. DELTA-4 plays a role in the Notch signaling pathway and activates Notch-1 and Notch-4. DELTA-4 is a membrane protein that is expressed in the vascular endothelium.
Synonyms:	rabbit anti-DELTA4 antibody, DELTA-4, delta 4 precursor, Delta-like protein 4, DLL4, Drosophila Delta homolog 4, notch ligand DLL4 precursor, DELTA 4
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	DLL4
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-DELTA-4 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region of Human DELTA-4.

Purity/Specificity: Anti-DELTA-4 affinity purified antibody is directed against human DELTA-4. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest reactivity with this protein from human based on 100% homology for the immunogen sequence. However, cross reactivity is expected with mouse, rat and chimpanzee DELTA-4 based on a 91% homology to the core 12 amino acid sequence within the 14 amino acid immunogen sequence. Cross reactivity with DELTA-4 homologues from other sources has not been determined.

Relevant Links:

- [NCBI - 9506545](#)
- [UniProtKB - Q9NR61](#)
- [GeneID - 54567](#)

Application Details

Tested Applications:	ELISA, IHC, WB
Suggested Applications:	Other (Based on references)
Application Note:	Anti-DELTA-4 has been tested for use in ELISA, immunohistochemistry and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 74 kDa in size corresponding to DELTA-4 by western blotting in the appropriate cell lysate or extract. For best results use Goat Serum as blocking agent in western blotting.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:25,000
IHC:	10 µg/mL to 20 µg/mL
WB:	1:500 - 1:2,500

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

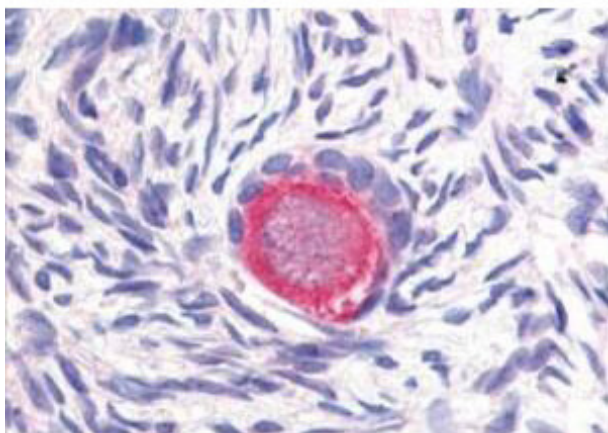
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

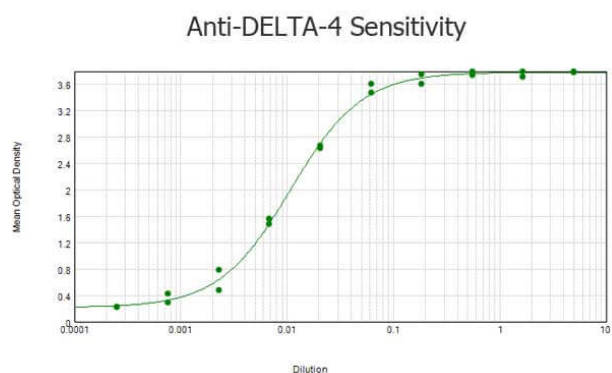
Expiration: Expiration date is one (1) year from date of receipt.

Images



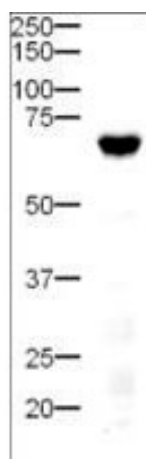
Immunohistochemistry

Rockland's Affinity Purified anti-Delta-4 antibody was used at 20 µg/ml to detect Delta-4 in a variety of tissues including colon, liver, skeletal muscle, ovary, pancreas, prostate, testes, thymus, tonsil and uterus. In contrast to reported findings, no staining was observed in vascular tissue. This image shows Delta-4 staining of human ovary. Tissue was formalin-fixed and paraffin embedded. Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.



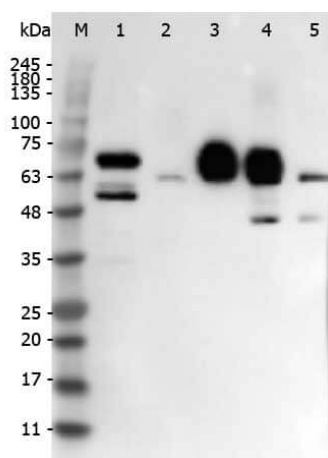
ELISA

ELISA results of purified Rabbit anti-DELTA-4 Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1µg of conjugate. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% fish gel, Goat anti-Rabbit IgG Antibody Peroxidase Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins) (p/n 611-103-122) and TMB ELISA Peroxidase Substrate (p/n TMBE-1000).



Western Blot

Western Blot of Rabbit anti-Delta-4 antibody. Lane 1: mouse pancreatic tissue (p/n W10-000-T023). Load: 20 μ g per lane. Primary antibody: Delta-4 antibody at 1:500 for overnight at 4°C. Secondary antibody: HRP-labeled Goat anti-Rabbit IgG secondary antibody (p/n 611-103-122) at 1:5,000 for 1 hour at RT. A chemiluminescence system was used for signal detection using a 3 min exposure time. Block: 5% Goat Serum (p/n B304) overnight at 4°C. Predicted/Observed size: 74 kDa, 70 kDa for Delta 4. Other band(s): none.



Western Blot

Western Blot of Rabbit anti-DELTA-4 antibody. Lane 1: Mouse Pancreas Whole Cell Lysate (p/n W10-000-T023). Lane 2: HUVEK Whole Cell Lysate. Lane 3: Human rDLL4. Lane 4: HEK293 Whole Cell Lysate + Human rDLL4. Lane 5: HEK293 Whole Cell Lysate (p/n W09-000-365). Load: 10 μ g per lane for Whole Cell Lysates or 50 ng for recombinant protein. Primary antibody: DELTA-4 antibody at 1:1,000 overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n 611-103-122) at 1:40,000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting (p/n MB-070) for 30 min at RT. Predicted/Observed size: 74 kDa, 74 kDa for DELTA-4. Other band(s): Not Identified.

References

- Jamshidi-Parsian A et al. Tumor-endothelial cell interaction in an experimental model of human hepatocellular carcinoma. *Exp Cell Res.* (2018)
- Mitsuhashi Y et al. Prognostic significance of Notch signalling molecules and their involvement in the invasiveness of endometrial carcinoma cells. *Histopathology.* (2012)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.