

Datasheet for 600-401-858**DELTA-1 Antibody****Overview**

Description:	Anti-Mouse DELTA-1 (RABBIT) Antibody - 600-401-858
Item No.:	600-401-858
Size:	100 µg
Applications:	ELISA, IHC, WB
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	Delta-like protein 1 is a protein that in humans is encoded by the DLL1 gene. The Notch signaling pathway has pleiotropic functions during mammalian embryogenesis. It is required for the patterning and differentiation of the presomitic and somitic paraxial mesoderm and of the neural tube. DELTA-1 is a mouse homolog of the Notch Delta ligand and is a member of the delta/serrate/jagged family. It plays a role in mediating cell fate decisions during hematopoiesis. Anti-Delta-like protein 1 antibody would be suitable for researchers in Cell Biology and Signal Transduction.
Synonyms:	rabbit anti-Delta1 antibody, Delta-1, Delta 1, Delta-like protein 1 antibody, Drosophila Delta homolog 1, Delta-like protein 1, Dll1-soluble form, Dll1-EC, Dll1-derived cell-associated form, Dll1-TM1C, Dll1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Dll1
Reactivity:	Mouse
Immunogen Type:	Conjugated Peptide

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 150-175 of Mouse DELTA-1. Swiss Prot accession Q61483.
Purity/Specificity:	Anti-DELTA-1 Antibody was affinity purified antibody produced by immunoaffinity chromatography using the immunizing peptide after immobilization to a solid phase. The antibody detects DELTA-1 from mouse. Activity against Delta-1 from other species has not been determined but is expected based on sequence homology. Expected to cross-react with rat, human and chicken.
Relevant Links:	• NCBI - NP_031891.2 • UniProtKB - Q61483 • GeneID - 13388

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	Anti-DELTA-1 Antibody has been tested for use in ELISA against the immunizing peptide, western blot, and in IHC. Reactivity in other immunoassays is unknown.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:3,000 - 1:12,000
IHC:	2ug/ml
WB:	1:100 - 1:1,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.21 mg/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

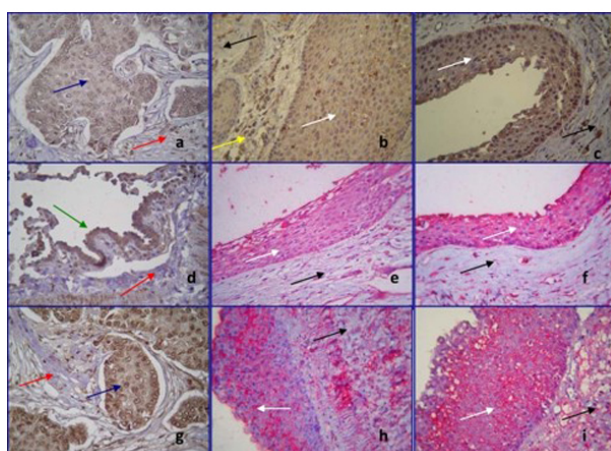
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

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

Images

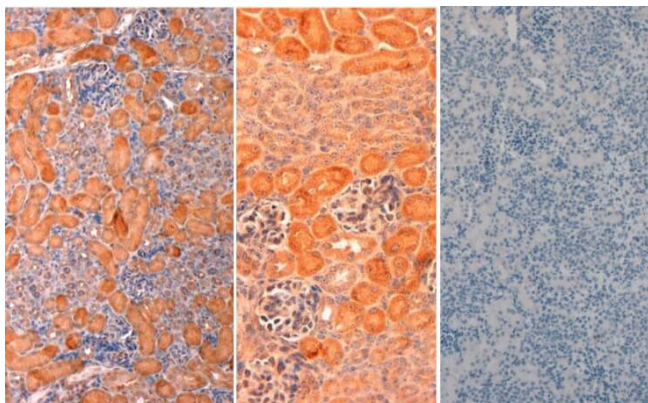


Immunohistochemistry

Immunohistochemical localization of Notch 1 (a,b,c), Delta 1 (d,e,f) and HES 1 (g,h,i) in positive controls (a,d,g) and in epithelial cells of human periapical cysts (b,c,e,f,h,i) (magnification x400). Staining is shown in brown (chromogen DAB) and red (chromogen alkaline phosphatase). White arrows show the lining epithelium of periapical cysts, while black arrows show the underlining connective tissue. Blue arrows demonstrate the human breast tumor cells, green arrow the human lung tumor cells, served as positive control, while red arrows reveal the stromal cells of the connective tissues.

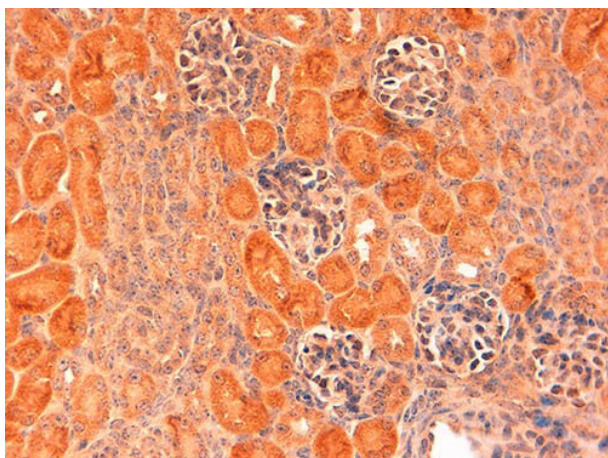
Notch 1 positive staining (a) is distributed in the human breast tumor cells. No immunoreactivity was observed in the stromal cells. Notch 1 moderate (b) and strong (c) staining is observed in the cytoplasm of epithelial cells of periapical cyst. The underlying connective tissue remains negative for Notch 1. Notice that the inflammatory cells infiltrated in the connective tissue are Notch 1 positive (yellow arrow).

Positive immunoreactivity for Delta 1 is shown in the human lung tumor cells (d). Weak (e) and moderate (f) cytoplasmic Delta 1 staining is detected in periapical cyst epithelium. HES 1 cytoplasmic staining is noticed in human breast tumor cells (g). HES 1 staining is localized in the cell membrane of epithelial cells (h,i). Fig 2. PMID: 21116324



Immunohistochemistry

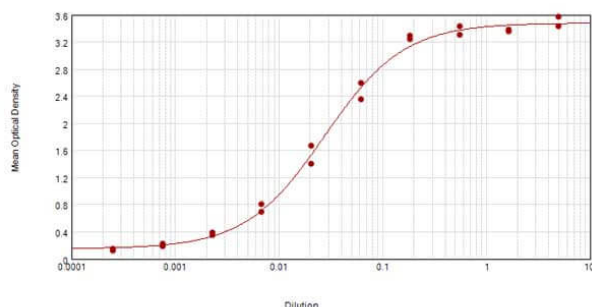
Immunohistochemistry of Rabbit anti-mouse DELTA1 Antibody in Mouse Embryonic Kidney Tissue: Mouse Embryonic Kidney. Fixation: FFPE buffered formalin 10% conc. Ag Retrieval: Heat, Citrate pH 6.2. Pressure Cooker (left, right), EDTA pH 9.5 Pressure Cooker (middle). Primary antibody: 2ug/ml 1.5 hour @ room temp. Secondary Ab: MACH 1 HRP POLYMER at 1:50 for 45" RT.



Immunohistochemistry

Immunohistochemistry of Rabbit Anti-Delta1 antibody. Tissue: Mouse embryonic kidney. Fixation: formalin fixed paraffin embedded 10% conc. Antigen retrieval: pH 9.5. Primary antibody: 2ug/ml for 1.5 hour @ room Temp. Secondary antibody: Peroxidase secondary reagent for 45 min at RT. Localization: as shown. Staining: 3,3'-diaminobenzidine tetrahydrochloride was used as the chromogen. Nuclei were counterstained purple with hematoxylin.

Anti-Mouse DELTA-1-Specificity



ELISA

ELISA results of purified Rabbit anti-Mouse DELTA-1 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).

References

- Meliou E et al. Immunohistochemical expression of Notch signaling in the lining epithelium of periapical cysts. *J Endod.* (2011)
- Meliou E et al. Notch 1 Receptor, Delta 1 Ligand and HES 1 Transcription Factor are Expressed in the Lining Epithelium of Periapical Cysts (Preliminary Study). *Open Dent J.* (2010)

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.