Product Name: Jagged1 Rabbit Polyclonal Antibody
Catalog #: APRab12813

Summary

Production Name	Jagged1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,WB,IHC,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	JAG1
Alternative Names	JAG1; JAGL1; Protein jagged-1; Jagged1; hJ1; CD339
Gene ID	182.0
SwissProt ID	P78504.The antiserum was produced against synthesized peptide derived from the Internal region of human JAG1. AA range:981-1030

Application

Dilution Ratio	IF 1:50-200 WB 1:500 - 1:2000. IHC-p: 1:100-1:300. ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	140kD

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Background

The jagged 1 protein encoded by JAG1 is the human homolog of the Drosophilia jagged protein. Human jagged 1 is the ligand for the receptor notch 1, the latter a human homolog of the Drosophilia jagged receptor notch. Mutations that alter the jagged 1 protein cause Alagille syndrome. Jagged 1 signalling through notch 1 has also been shown to play a role in hematopoiesis. [provided by RefSeq, Jul 2008],developmental stage:Expressed in 32-52 days embryos in the distal cardiac outflow tract and pulmonary artery, major arteries, portal vein, optic vesicle, otocyst, branchial arches, metanephros, pancreas, mesocardium, around the major bronchial branches, and in the neural tube.,disease:Defects in JAG1 are a cause of tetralogy of Fallot (TOF) [MIM:187500]. TOF is a congenital heart anomaly which consists of pulmonary stenosis, ventricular septal defect, dextroposition of the aorta (aorta is on the right side instead of the left) and hypertrophy of the right ventricle. This condition results in a blue baby at birth due to inadequate oxygenation. Surgical correction is emergent.,disease:Defects in JAG1 are the cause of Alagille syndrome type 1 (ALGS1) [MIM:118450]. Alagille syndrome is an autosomal dominant multisystem disorder defined clinically by hepatic bile duct paucity and cholestasis in association with cardiac, skeletal, and ophthalmologic manifestations. There are characteristic facial features and less frequent clinical involvement of the renal and vascular systems.,disease:The mutation Asp-274 is "leaky". Two populations of proteins are produced from this allele. One population is abnormally glycosylated and is retained intracellularly rather than being transported to the cell surface. A second population is normally glycosylated and is transported to the cell surface, where it is able to signal to the Notch receptor. The Asp-274 protein is temperature sensitive, with more abnormally glycosylated (and nonfunctional) molecules produced at higher temperatures. Carriers of this mutation therefore have more than 50% but less than 100% of the normal concentration of molecules on the cell surface. The cardiac-specific phenotype associated with this mutation suggests that the developing heart is more sensitive than the developing liver to decreased dosage of JAG1 protein.,function:Ligand for multiple Notch receptors and involved in the mediation of Notch signaling. May be involved in cell-fate decisions during hematopoiesis. Seems to be involved in early and late stages of mammalian cardiovascular development. Inhibits myoblast differentiation (By similarity). Enhances fibroblast growth factor-induced angiogenesis (in vitro).,similarity:Contains 1 DSL domain.,similarity:Contains 15 EGF-like domains.,subunit:Interacts with NOTCH1, NOTCH2 and NOTCH3.,tissue specificity:Widely expressed in adult and fetal tissues. In cervix epithelium expressed in undifferentiated subcolumnar reserve cells and squamous metaplasia. Expression is up-regulated in cervical squamous cell carcinoma. Expressed in bone marrow cell line HS-27a which supports the long-term maintenance of immature progenitor cells.,

Research Area

Notch;

Image Data

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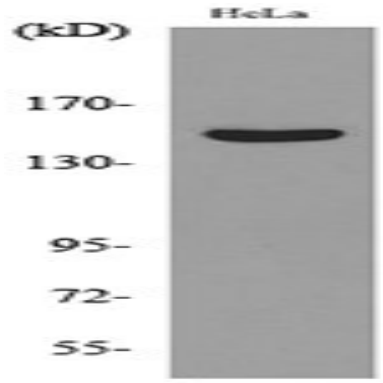
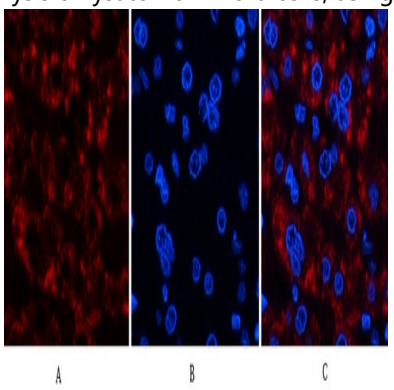
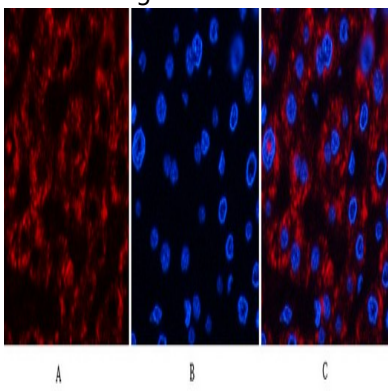


Western blot analysis of lysate from HeLa cells, using JAG1 Antibody.



Immunofluorescence analysis of human-liver tissue. 1,Jagged1 Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



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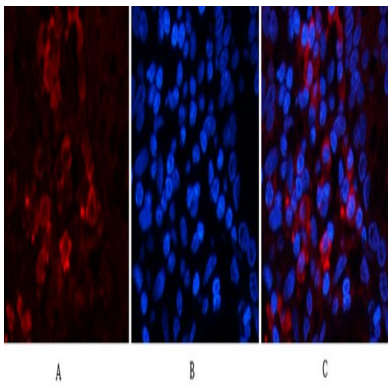
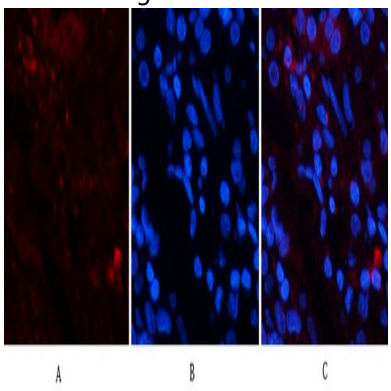


Immunofluorescence analysis of human-stomach tissue. 1,Jagged1 Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



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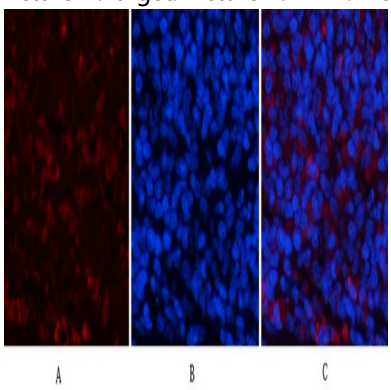

Immunofluorescence analysis of rat-spleen tissue. 1,Jagged1 Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

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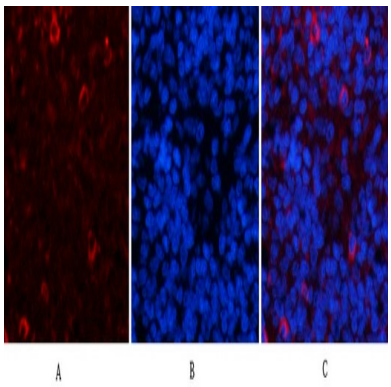

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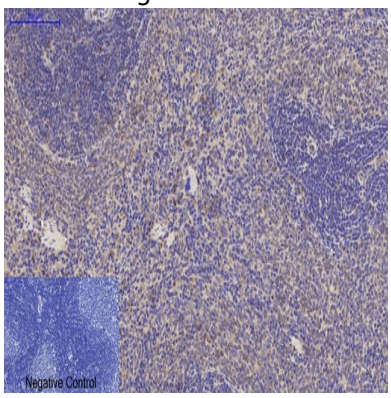
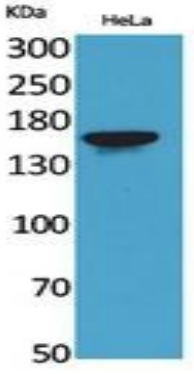


Immunohistochemical analysis of paraffin-embedded Rat-spleen tissue. 1,Jagged1 Polyclonal Antibody was diluted at 1:200（4°C,overnight）. 2, Sodium citrate pH 6.0 was used for antibody retrieval（>98°C,20min）. 3,Secondary antibody was diluted at 1:200（room tempeRature, 30min）. Negative control was used by secondary antibody only.



Western Blot analysis of HeLa cells using Jagged1 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000

Note

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For research use only.