Jagged1 (PT1045R) PT™ Rabbit mAb

CatalogNo: YM8834 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,IP,ELISA

MW
- 134kD (Calculated)

134kD (Observed)

Isotype
- IgG,Kappa

Recommended Dilution Ratios

IHC 1:100-1:500
WB 1:2000-1:10000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PT1045R

Immunogen Information

Specificity	Endogenous

Target Information

Gene name JAG1

Protein Name Protein jagged-1

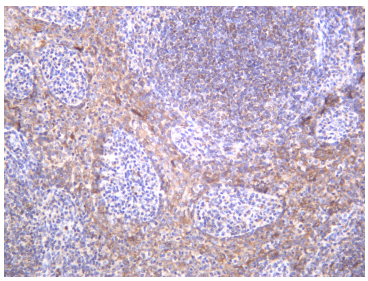
Organism	Gene ID	UniProt ID
Human	182;	P78504;
Mouse	16449;	Q9QXX0;
Rat	29146;	Q63722;

Cellular Localization Membrane; Single-pass type I membrane protein.

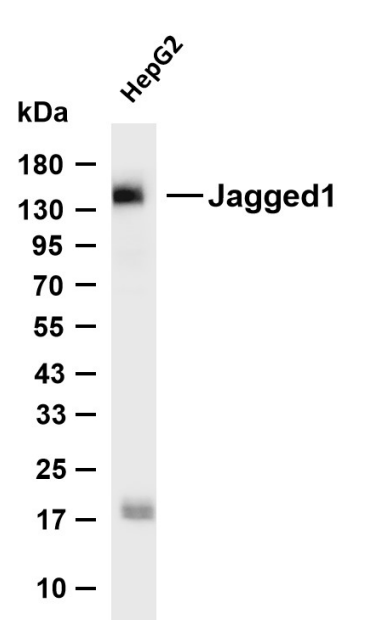
Tissue specificity Widely expressed in adult and fetal tissues. In cervix epithelium expressed in undifferentiated subcolumnar reserve cells and squamous metaplasia. Expression is up-regulated in cervical squamous cell carcinoma. Expressed in bone marrow cell line HS-27a which supports the long-term maintenance of immature progenitor cells.

Function 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.,

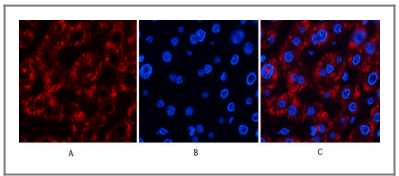
Validation Data



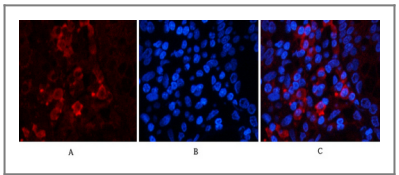
Human tonsil was stained with anti-Jagged1 (PT1045R) Rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Jagged1 (PT1045R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HepG2 Predicted band size: 134kDa Observed band size: 134kDa



Immunofluorescence analysis of human-liver tissue. 1,Jagged1 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



Immunofluorescence analysis of human-stomach tissue. 1,Jagged1 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

Contact information

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Please scan the QR code to access additional product information:
Jagged1 (PT1045R) PT™ Rabbit mAb