Product name:	Jagged1 Rabbit Polyclonal Antibody
Cat number:	ABN12813
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from the Internal region of human JAG1. AA range:981-1030
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight:	140kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

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.,