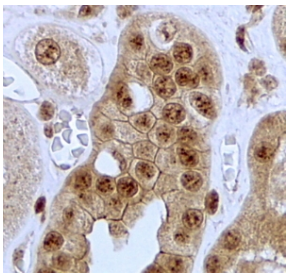
Jagged 1 Antibody / Notch Signaling Ligand Antibody (R36227)

Catalog No.	Formulation	Size
R36227-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Dog, Pig, Cow
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	182
Applications	Immunohistochemistry (FFPE) : 2-4ug/ml ELISA (peptide) LOD : 1:8000
Limitations	This Jagged 1 Antibody / Notch Signaling Ligand Antibody is available for research use only.



Jagged 1 Antibody Kidney IHC. Immunohistochemistry staining of FFPE human kidney tissue using Jagged 1 Antibody / Notch Signaling Ligand Antibody demonstrates distinct cytoplasmic and membranous HRP-DAB brown staining within renal tubular epithelial cells. The staining pattern is consistent with expression of JAG1, a transmembrane Notch ligand that mediates cell-cell communication and regulates cellular differentiation, tissue maintenance, and developmental signaling pathways. Jagged 1 plays important roles in kidney development, epithelial homeostasis, and Notch pathway activation within renal tissues. HIER was performed by steaming tissue sections in pH 6 citrate buffer prior to immunostaining. The antibody was applied at 2 ug/ml and staining was visualized using an HRP detection system.

Description

Jagged 1 Antibody / Notch Signaling Ligand Antibody detects Jagged 1 (JAG1), a transmembrane protein that functions as a key ligand within the Notch signaling pathway. Jagged 1 mediates direct cell-cell communication by binding Notch receptors on neighboring cells and initiating signaling cascades that regulate gene expression, cell fate determination,

proliferation, differentiation, and tissue patterning. As one of the principal activators of Notch signaling in vertebrates, Jagged 1 plays essential roles in embryonic development and maintenance of adult tissue homeostasis. Jagged 1 Antibody is widely used to investigate Notch pathway activity in normal and disease-associated biological processes.

JAG1 belongs to the Delta/Serrate/LAG-2 (DSL) family of Notch ligands and is expressed in a wide variety of tissues. Activation of Notch signaling through Jagged 1 influences communication between adjacent cells, allowing tissues to coordinate developmental programs and maintain proper cellular organization. Through these interactions, JAG1 contributes to regulation of stem cell populations, lineage commitment, tissue remodeling, and cellular differentiation across numerous organ systems.

Jagged 1 is particularly important during organogenesis, where tightly regulated Notch signaling guides the formation of the cardiovascular system, nervous system, liver, pancreas, kidney, skeletal tissues, and other developing organs. The protein participates in signaling networks that establish tissue boundaries and regulate the balance between cellular proliferation and differentiation. Because of these functions, JAG1 serves as a valuable marker for studies of developmental biology and tissue morphogenesis.

Beyond embryonic development, Jagged 1 continues to play important roles in adult tissues by regulating cellular renewal, repair processes, and maintenance of tissue architecture. Notch signaling mediated by JAG1 has been implicated in stem cell biology, angiogenesis, immune regulation, and regenerative responses following injury. Researchers frequently utilize Jagged 1 Antibody to examine signaling events that influence tissue maintenance and cellular plasticity.

Altered JAG1 expression and dysregulated Notch signaling have been associated with numerous pathological conditions, including cancer, cardiovascular disorders, developmental syndromes, and fibrotic diseases. Because Notch pathway activity influences cellular growth and differentiation programs, Jagged 1 has become an important target in both basic research and therapeutic development. Studies of JAG1 expression provide valuable insight into mechanisms governing tissue organization, disease progression, and cellular communication.

Jagged 1 Antibody / Notch Signaling Ligand Antibody is useful for researchers studying Notch signaling, developmental biology, stem cell regulation, tissue patterning, organogenesis, angiogenesis, cancer biology, and regenerative medicine. Validation may include immunohistochemistry, western blotting, immunofluorescence, flow cytometry, ELISA, and related protein expression applications when supported by experimental data.

Explore our Stem Cell Antibodies page for additional markers involved in Notch signaling, cell fate determination, tissue regeneration, and stem cell regulation.

Application Notes

Optimal dilution of the Jagged 1 Antibody / Notch Signaling Ligand Antibody should be determined by the researcher.

Immunogen

Amino acids TNKQDNRDLESAQS were used as the immunogen for this Jagged 1 / JAG1 antibody.

Storage

Aliquot and store the Jagged 1 / JAG1 antibody at -20oC.

Alternate Names

Jagged 1 Antibody, JAG1 Antibody, Protein Jagged-1 Antibody, Notch Ligand Jagged 1 Antibody, Notch Signaling Ligand Antibody, DSL Family Ligand Antibody