JAG1, Jagged 1 polyclonal antibody

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Box 1 | Basic Info

Cat. No.	ABP-PAB-10531
Animal ID	RB1911/1912
Host	Rabbit
Reactivity	Human
Format	Purified
Accession number	NM_000214
Amount	100µg

Alternative Name(s): AGS, AHD, AWS, HJ1, JAGL1, Alagille syndrome protein

The Notch signaling pathway is an intercellular signaling mechanism that is essential for proper embryonic development. Members of the Notch gene family encode transmembrane receptors that are critical for various cell fate decisions. Jagged-1 (JAG1) is a cell surface protein which is one of several ligands that activate Notch and related receptors. JAG1 functions in an embryologically important signaling pathway and has also been shown to play a role in hematopoiesis. JAG1 inhibits proliferation of cd34+ macrophage progenitor cells and a JAG1 gene abnormality may be an aggravating factor in extrahepatic biliary atresia. Activation of NOTCH1 signaling by JAG1 induces monocyte-derived dendritic cell maturation in vitro. JAG1 interaction with NOTCH1 on tumor cells dramatically induces proliferation and inhibition of apoptosis in vitro. Either haploinsufficiency for wild-type JAG1 and/or dominant negative effects produced by mutated JAG1 are responsible for the Alagille syndrome.

Buffers

Purified rabbit polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column and eluted out with both high and low pH buffers and neutralized immediately after elution then followed by dialysis against PBS.

Immunogen

KLH conjugated synthetic peptide comprised of amino acids 1204 - 1218 [DLESAQSLNRMEYIV] of the human jagged 1 (JAG1) protein.

Application:

Tested by peptide-specific ELISA (1:1,000).

Storage

Maintain refrigerated at 2-8ºC for up to 6 months. For long term storage store at -20ºC. Avoid repeated freeze-thaw cycles.

References:

1. Ropke A, Kujat A, Graber M, Giannakudis J, Hansmann I: Identification of 36 novel Jagged1 (JAG1) mutations in patients with Alagille syndrome. Hum. Mutat. 100 (2003).
2. John GR, Shankar SL, Shafit-Zagardo B, Massimi A, Lee SC, Raine CS, Brosnan CF: Multiple sclerosis: re-expression of a developmental pathway that restricts oligodendrocyte maturation. Nat. Med. 1115-1121 (2002).
3. Kohsaka T, Yuan ZR, Guo SX, Tagawa M, Nakamura A, Nakano M, Kawasasaki H, Inomata Y, Tanaka K, Miyauchi J: The significance of human jagged 1 mutations detected in severe cases of extrahepatic biliary atresia. Hepatology 36(4 Pt 1): 904-912 (2002).
4. Masuya M, Katayama N, Hoshino N, Nishikawa H, Sakano S, Araki H, Mitani H, Suzuki H, Miyashita H, Kobayashi K, Nishii K, Minami N, Shiku H: The soluble Notch ligand, Jagged-1, inhibits proliferation of CD34+ macrophage progenitors. Int. J. Hematol. 75(3): 269-276 (2002).
5. Piccoli DA, Spinner NB: Alagille syndrome and the Jagged1 gene. Semin. Liver Dis. 21(4): 525-534 (2001); review.
6. Gray GE, Mann RS, Mitsiadis E, Henrique D, Carcangiu ML, Banks A, Leiman J, Ward D, Ish-Horowitz D, Artavanis-Tsakonas S: Human ligands of the Notch receptor. Am. J. Pathol. 154(3): 785-794 (1999).
7. Lindsell CE, Shawber CJ, Boulter J, Weinmaster G: Jagged: a mammalian ligand that activates Notch1. Cell 80(6): 909-917 (1995). PMID: 7697721 [PubMed - indexed for MEDLINE]