

Certificate of Analysis

Product: Protein A Purified Anti-Human Jagged-1 [Rabbit]

Code: 200-401-698

Lot #: 19843

Size: 500 µg

Physical State: Liquid (sterile filtered)

Antibody Concentration: 1.17 mg/ml (by UV absorbance at 280 nm)

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C prior to opening. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening.

Recommended Dilutions:

ELISA	1:5,000 - 1:20,000
WESTERN BLOT	1:500 - 1:2,000
IMMUNOHISTOCHEMISTRY	1:100 - 1:500
IF MICROSCOPY	1:200 - 1:1,000
OTHER APPLICATIONS	User Optimized

Background Information: The jagged 1 protein encoded by JAG1 is the human homolog of the Drosophila jagged protein. Human jagged 1 is the ligand for the receptor notch 1, the latter a human homolog of the Drosophila jagged receptor notch. Mutations that alter the jagged 1 protein cause Alagille syndrome. Jagged 1 signaling through notch 1 has also been shown to play a role in hematopoiesis.

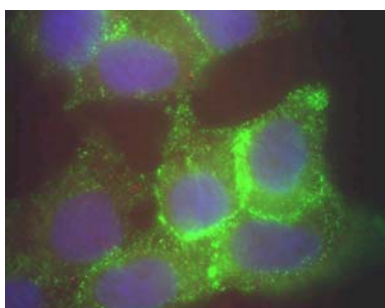
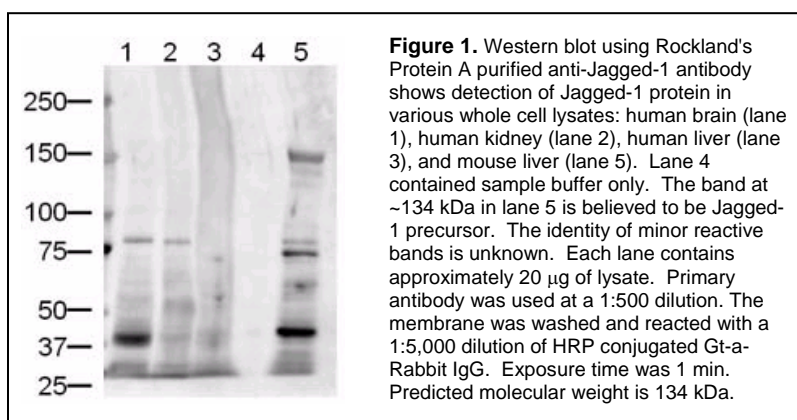


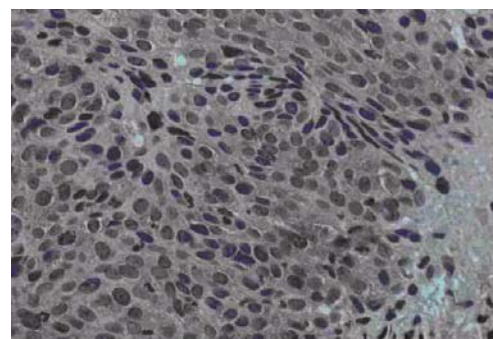
Figure 2. Immunofluorescence Microscopy using Rockland's Protein A purified anti-Jagged-1 antibody of human corneal epithelial cells. Primary antibody was used at a 1:500 dilution. The Jagged1 (green staining) is localized to the cytoplasm and is consistent with reports in the literature. The nucleus is stained with Bis benzimide (blue). *Personal Communication. Aihua Ma, University of Cardiff.*

Application Note(s): This protein A purified antibody has been tested for use in ELISA, immunohistochemistry, immunofluorescence microscopy and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 150 kDa in size corresponding to Jagged-1 in mouse liver whole cell lysates, and a 75 kDa band in human brain and kidney lysates.

Relevant Links: NCBI [NP_000205](https://pubmed.ncbi.nlm.nih.gov/100205/)
 Swis-Prot [P78504](https://www.uniprot.org/uniprot/P78504)

Purity and Specificity: This protein A purified antibody is directed against human Jagged-1 protein. The product was purified from mono-specific antiserum by affinity chromatography. A BLAST analysis was used to suggest cross reactivity with Jagged-1 protein from human, chimpanzee, rat and mouse based on 100% homology with the immunizing sequence. Partial reactivity is expected against dog (81%) and *Xenopus laevis* (85%) based on partial sequence homologies as indicated. Reactivity against homologues from other sources is not known.

Figure 2. Immunohistochemical staining of human cervical cancer tissue (40X magnification) using Rockland's Protein A purified anti-Jagged-1 antibody. Tissue was fixed with formalin and embedded in paraffin. Hematoxylin was used to counter-stain cells. A 1:100 dilution of primary antibody was used. *Personal Communication. Martin Kast Laboratory.*



Protein Sequence: Human Jagged-1, 1218 aa, predicted MW 133.8 kDa

1	mrsprtrgrs	grplslall	lcalrakvcg	asgqfeilei	smqnvngelq	ngnccggarn
61	pgdrkctrde	cdtyfkvclk	eyqsrvtagg	pcsfsgsgstp	viggntfnlk	asrgndrnri
121	vlpfsfawpr	sytlveawd	ssndtvqpsd	iiekashsgm	inpsrqwqtl	kqntgvahfe
181	yqirvtcddy	yygfgcnkfc	rprddfghy	acdqngnktc	megwmgpecn	raicrqgpcsp
241	khgscklpgd	crcqygwqgl	ycdkciphpg	cvhgicnepw	qclcetnwgg	qlcdkldnyc
301	gthqpcnngg	tcsntgpdky	qcscpegysg	pnceiaehac	lsdpchnrgs	cketslgfec
361	ecspgwtgpt	cstniddcsp	nncshggtcq	dlvngfkvc	ppqwgtktcq	ldaneceakp
421	cvnakscknl	iasyyccdlp	gwmgnqcdin	indclgqcqn	dascrdlvng	yrccppgya
481	gdhcerdide	casnplngg	hcqneinrfq	clcptgfsqn	lcqldidyce	pncpcnqaqc
541	ynrasdyfck	cpedyegknc	shlkdhcrtt	pcevidsctv	amasndtpeg	vryissnvcg
601	phgkcksqsg	gkftcdcckng	ftgtycheni	ndcesnprcn	ggctidgvns	ykicisdgwe
661	gaycetnind	csqnpchnng	tcrdlvndfy	cdckngwkqgk	tchsrdsqcd	eatcnnngtc
721	ydegdafkcm	cpggwegttc	niarnssclp	npchnngtcv	vngesftcvc	kegwegpica
781	qntndcspdp	cynsgtcvdg	dnwyrcecap	gfagpdcrin	inecqsspca	fgatcvdein
841	gyrcvcppgh	sgakcqevsq	rpcitmgsvi	pdgakwdddc	ntcqcqlngri	acskvvcgpr
901	pcllhkhgse	cpsgqscipi	lddqcfvhpc	tgvgecrssh	lqpvtkctcs	dsyyqdnca
961	itffnkemm	spgltehic	selrnlilk	nvsaeysiyi	acepspsann	eihvaisaed
1021	irddgnpike	itdkiidlvs	krdgnsslia	avaevrvqrr	plknrtdfiv	pllssvltva
1081	wicclvtafy	wclrrrkpg	shthsasedn	ttnvreqln	qiknpiekhg	antvpikdye
1141	nkskmskir	thnseveedd	mdkhqqkarf	akqpaytlvd	reekppngtp	tkhpnwtnkq
1201	dndrlesaqs	lnrmeiyv				

Immunogen: This protein A purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 110-125 of human Jagged-1 protein.

General References:

Yabe, Y., Matsumoto, T., Tsurumoto, T. and Shindo, H. (2005) Immunohistological localization of Notch receptors and their ligands Delta and Jagged in synovial tissues of rheumatoid arthritis. *J Orthop Sci* **10** (6), 589-594.

Veeraraghavalu, K., Subbaiah, V. K., Srivastava, S., Chakrabarti, O., Syal, R. and Krishna, S. (2005) Complementation of human papillomavirus type 16 E6 and E7 by Jagged1-specific Notch1-phosphatidylinositol 3-kinase signaling involves pleiotropic oncogenic functions independent of CBF1; Su(H); Lag-1 activation. *J. Virol.* **79** (12), 7889-7898.

Kuure, S., Sainio, K., Vuolteenaho, R., Ilves, M., Wartiovaara, K., Immonen, T., Kvist, J., Vainio, S. and Sariola, H. (2005) Crosstalk between Jagged1 and GDNF/Ret/GFRalpha1 signalling regulates ureteric budding and branching. *Mech. Dev.* **122** (6), 765-780.

Harendza, S., Hubner, C. A., Glaser, C., Burdelski, M., Thaiss, F., Hansmann, I., Gal, A. and Stahl, R. A. (2005) Renal failure and hypertension in Alagille syndrome with a novel JAG1 mutation. *J. Nephrol.* **18** (3), 312-317.

Purow, B. W., Haque, R. M., Noel, M. W., Su, Q., Burdick, M. J., Lee, J., Sundaresan, T., Pastorino, S., Park, J. K., Mikolaenko, I., Maric, D., Eberhart, C. G. and Fine, H. A. (2005) Expression of Notch-1 and its ligands, Delta-like-1 and Jagged-1, is critical for glioma cell survival and proliferation. *Cancer Res.* **65** (6), 2353-2363.

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#611-132-122	IRDye800 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10
#B501-0500	500 g BLOTTO
#BSA-30	500 ml 30% BOVINE SERUM ALBUMIN SOL'N in 0.85% sodium chloride (no preservative or stabilizer)
#B304	10 ml NORMAL GOAT SERUM (NGS)
#MB-070	Blocking Buffer for Fluorescent Western Blotting
#KIA-003	MaxTag TM Anti-RABBIT IgG Kit for Immunoblotting

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