

Jagged-1/JAG1 Protein, Human (HEK293, His)

Cat. No.:	HY-P73258
Synonyms:	AGS; Alagille syndrome; AWS; CD339; HJ1; JAG1; Jagged 1; JAGL1
Species:	Human
Source:	HEK293
Accession:	P78504-1/NP_000205.1 (Q34-S1046)
Gene ID:	182
Molecular Weight:	150 kDa

PROPERTIES

AA Sequence

Q F E L E I L S M Q	N V N G E L Q N G N	C C G G A R N P G D	R K C T R D E C D T
Y F K V C L K E Y Q	S R V T A G G P C S	F G S G S T P V I G	G N T F N L K A S R
G N D R N R I V L P	F S F A W P R S Y T	L L V E A W D S S N	D T V Q P D S I I E
K A S H S G M I N P	S R Q W Q T L K Q N	T G V A H F E Y Q I	R V T C D D Y Y Y G
F G C N K F C R P R	D D F F G H Y A C D	Q N G N K T C M E G	W M G P E C N R A I
C R Q G C S P K H G	S C K L P G D C R C	Q Y G W Q G L Y C D	K C I P H P G C V H
G I C N E P W Q C L	C E T N W G G Q L C	D K D L N Y C G T H	Q P C L N G G T C S
N T G P D K Y Q C S	C P E G Y S G P N C	E I A E H A C L S D	P C H N R G S C K E
T S L G F E C E C S	P G W T G P T C S T	N I D D C S P N N C	S H G G T C Q D L V
N G F K C V C P P Q	W T G K T C Q L D A	N E C E A K P C V N	A K S C K N L I A S
Y Y C D C L P G W M	G Q N C D I N I N D	C L G Q C Q N D A S	C R D L V N G Y R C
I C P P G Y A G D H	C E R D I D E C A S	N P C L N G G H C Q	N E I N R F Q C L C
P T G F S G N L C Q	L D I D Y C E P N P	C Q N G A Q C Y N R	A S D Y F C K C P E
D Y E G K N C S H L	K D H C R T T P C E	V I D S C T V A M A	S N D T P E G V R Y
I S S N V C G P H G	K C K S Q S G G K F	T C D C N K G F T G	T Y C H E N I N D C
E S N P C R N G G T	C I D G V N S Y K C	I C S D G W E G A Y	C E T N I N D C S Q
N P C H N G G T C R	D L V N D F Y C D C	K N G W K G K T C H	S R D S Q C D E A T
C N N G G T C Y D E	G D A F K C M C P G	G W E G T T C N I A	R N S S C L P N P C
H N G G T C V V N G	E S F T C V C K E G	W E G P I C A Q N T	N D C S P H P C Y N
S G T C V D G D N W	Y R C E C A P G F A	G P D C R I N I N E	C Q S S P C A F G A
T C V D E I N G Y R	C V C P P G H S G A	K C Q E V S G R P C	I T M G S V I P D G
A K W D D D C N T C	Q C L N G R I A C S	K V W C G P R P C L	L H K G H S E C P S
G Q S C I P I L D D	Q C F V H P C T G V	G E C R S S S L Q P	V K T K C T S D S Y
Y Q D N C A N I T F	T F N K E M M S P G	L T T E H I C S E L	R N L N I L K N V S
A E Y S I Y I A C E	P S P S A N N E I H	V A I S A E D I R D	D G N P I K E I T D
K I I D L V S K R D	G N S		

Biological Activity

Measured by the ability of the immobilized protein to enhance BMP2-induced alkaline phosphatase activity in C3H10T1/2 mouse embryonic fibroblast cells and the ED₅₀ is ≤20 µg/mL.

Appearance

Lyophilized powder.

Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 (Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.) or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The Jagged-1 (JAG1) protein functions as a ligand for multiple Notch receptors, playing a crucial role in mediating Notch signaling, as evidenced by its interactions with NOTCH1, NOTCH2, and NOTCH3. Its involvement in cell-fate decisions during hematopoiesis suggests a regulatory role in blood cell development. JAG1 is implicated in various stages of mammalian cardiovascular development and has been associated with both early and late phases of this process. Additionally, it inhibits myoblast differentiation and enhances fibroblast growth factor-induced angiogenesis in vitro. Notably, the interaction between JAG1 and NOTCH1 is calcium ion-dependent, highlighting the complexity of its regulatory mechanisms in cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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