

**Synonym**

CD339,JAG1,Jagged1,hJ1,JAGL1

**Source**

Human Jagged 1, His Tag, premium grade(JA1-H52H9) is expressed from human 293 cells (HEK293). It contains AA Gln 34 - Ser 1046 (Accession # [P78504-1](#) ).

Predicted N-terminus: Gln 34

*It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.*

**Molecular Characterization**

Jagged 1(Gln 34 - Ser 1046) P78504-1	Poly-his
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This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 112.3 kDa. The protein migrates as 130 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 0.1 EU per µg by the LAL method.

**Sterility**

The sterility testing was performed by membrane filtration method.

**Mycoplasma**

Negative.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

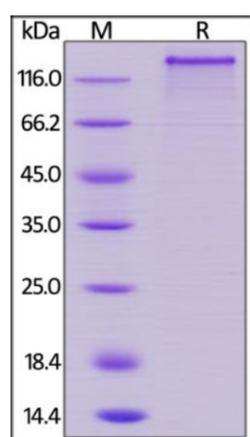
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

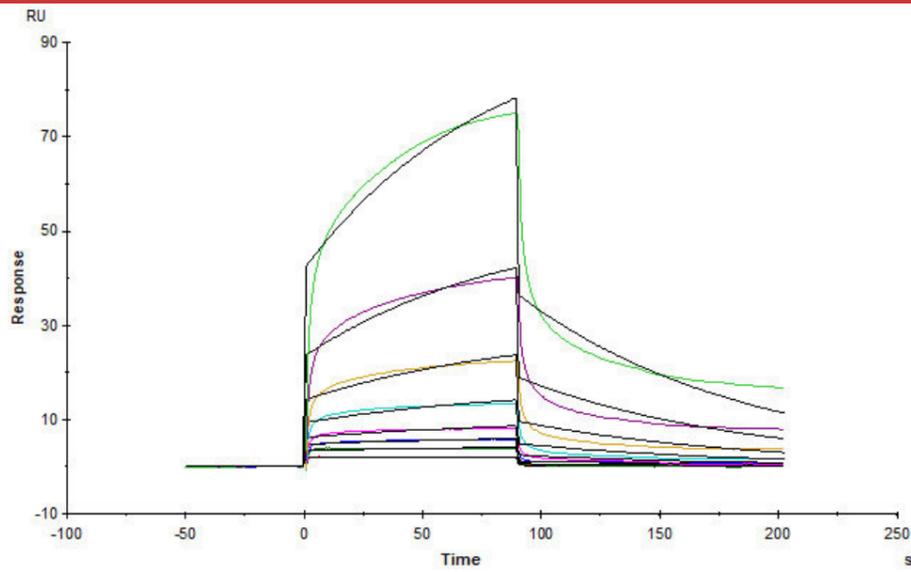
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human Jagged 1, His Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity-SPR**



Human Jagged 1, His Tag, premium grade (Cat. No. JA1-H52H9) immobilized on CM5 Chip can bind Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) with an affinity constant of 5.13  $\mu$ M as determined in a SPR assay (Biacore T200) (Routinely tested).

### Background

Protein jagged-1 (JAG1) is also known as Jagged1, hJ1, JAGL1 and CD339, which is a single-pass type I membrane protein containing one DSL domain and 15 EGF-like domains. JAG1 is widely expressed in adult and fetal tissues, the expression of JAG1 is up-regulated in cervical squamous cell carcinoma and also expressed in bone marrow cell line HS-27a. JAG1 is a ligand for multiple Notch receptors and involved in the mediation of Notch signaling. JAG1 is involved in early and late stages of mammalian cardiovascular development. JAG1 inhibits myoblast differentiation by similarity and enhances fibroblast growth factor-induced angiogenesis (in vitro).

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.