



## Product Data Sheet

**Product Name:** JAG-1 (188-204), Jagged-1 (188-204), Notch Ligand  
**Catalog Number:** AS-61298 (1 mg) Lot Number: See label on vial  
**Sequence:** H-Cys-Asp-Asp-Tyr-Tyr-Tyr-Gly-Phe-Gly-Cys-Asn-Lys-Phe-Cys-Arg-Pro-Arg-OH (3-letter code)  
CDDYYYGFGCNKFCRPR (1-letter code)  
**Molecular Weight:** 2107.4  
**% Peak Area by HPLC:** ≥ 95  
**Appearance:** Lyophilized white powder

**Peptide Reconstitution:** Use distilled or higher quality water. Add water directly to the lyophilized peptide powder to obtain a final concentration of approximately 0.5 mg/mL to 1mg/mL or less. Gently vortex to mix. For peptides that have poor solubility in the suggested solvent, brief sonication may increase solubility in some cases.

**Storage:** Peptide is shipped at ambient temperature. Upon receipt, store lyophilized powder at –20°C or lower. Reconstituted peptide should be aliquoted into several freezer vials and stored at –20°C or lower. Do not freeze thaw.

**Description:** This peptide is a fragment of the JAG-1 protein. JAG-1 is Notch ligand, a peptide that is the most conspicuously expressed ligand in skin. JAG-1 induces epidermal maturation. Exposing submerged keratinocytes monolayers to JAG-1 with elevated calcium concentration produces stratification with loricrin expression and NF-kB activation. Ref: Nickoloff, B. et al. *Cell Death Different.* **9**, 842 (2002).

**Additional Information:** Listed below are relevant information that may provide a guideline on how to use this product. End users will have to adapt to their own specific applications.

The DAPT (Sigma-Aldrich, St. Louis, MO, USA) and Jag-1 (AnaSpec, San Jose, CA, USA) were both dissolved in dimethyl sulfoxide (DMSO). Tracheas were excised sterilely and cultured in 1 : 1 mix of Dulbecco's modified Eagle's medium and Ham's F-12 medium (DMEM/F12) containing 120 mg/mL 5-FU and 10% fetal bovine serum (FBS) for 12 h at 37 °C. Following removal of 5-FU, tracheas were cultured in DMEM/F12 containing 10% FBS with or without 5 µM DAPT (Sigma-Aldrich) or 40 µM Jag-1 peptide (AnaSpec). The tracheas cultured in DMEM/F12 containing DMSO alone were used as vehicle controls for the DAPT- or Jag-1-treated group-[Ma, X-B. et al. \*Cell Proliferation\* \*\*42\*\*, 15 \(2009\).](#)

The 17-mer JAG-1 peptide (CDDYYYGFGCNKFCRPR), corresponding to amino acids 187-203 of human Jagged1 (accession number: NP\_000205), was described previously and was shown to active notch signaling in keratinocytes and myeloid cell lines (36,37). The scrambled peptide (SC)-JAG-1 (RCGPDCFDNYGRYKYCF) was used as a negative control. Both peptides were synthesized by Anaspec (San Jose, CA, USA). Peptides were dissolved in DMOS (50 mM), aliquoted, and stored at -20°C. Further dilutions to 100 µM were carried out at the time of the experiments-[Sainson, R.C.A. et al. \*FASEB Journal\* \*\*19\*\*, 1027 \(2005\).](#)

### Published Citations:

[Ma, X-B. et al. \*Cell Proliferation\* \*\*42\*\*, 15 \(2009\).](#)  
[Sainson, R.C.A. et al. \*FASEB Journal\* \*\*19\*\*, 1027 \(2005\).](#)

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