

Yersinia pseudotuberculosis invasin Protein, His Tag, premium grade

Catalog # INN-Y5146



Synonym

invasin

Source

Yersinia pseudotuberculosis invasin Protein, His Tag, premium grade (INN-Y5146) is expressed from *E. coli* cells. It contains AA Asn 489 - Ile 985 (Accession # [P11922-1](#)).

Predicted N-terminus: Met

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

Poly-his

invasin(Asn 489 - Ile 985)
P11922-1

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 54.1 kDa. The protein migrates as 54 kDa±3 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 0.01 EU per µg by the LAL method / rFC method.

Host Cell Protein

<0.5 ng/µg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

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.

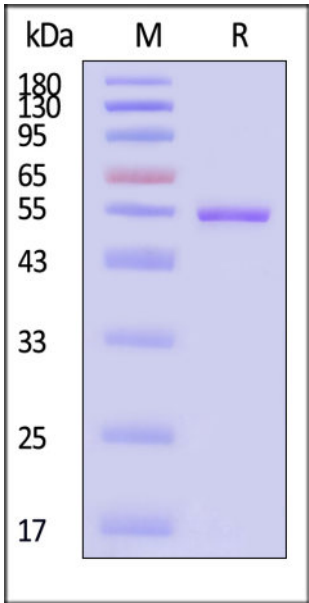
This product is stable after storage at:

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

ACRO Quality Management System

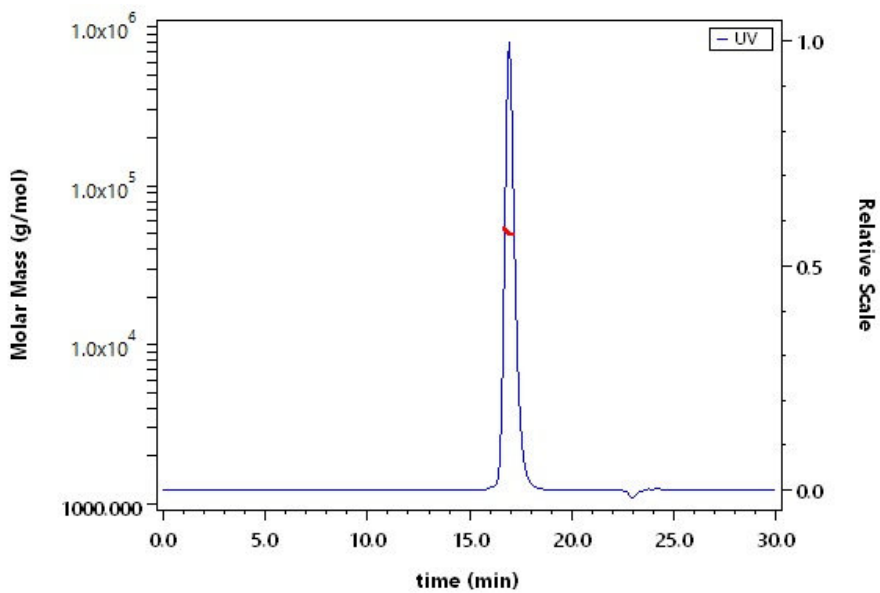
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



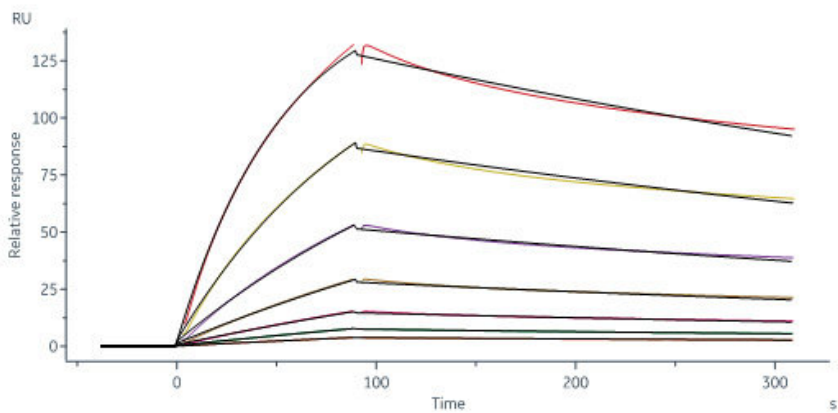
Yersinia pseudotuberculosis invasin Protein, His Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Yersinia pseudotuberculosis invasin Protein, His Tag, premium grade (Cat. No. INN-Y5146) is more than 90% and the molecular weight of this protein is around 40-70 kDa verified by SEC-MALS.

Bioactivity-SPR



Yersinia pseudotuberculosis invasin Protein, His Tag, premium grade (Cat. No. INN-Y5146) immobilized on CM5 Chip can bind Human ITGA6&ITGB1 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT1-H52W7) with an affinity constant of 42.4 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

Invasin, a surface protein from Yersinia pseudotuberculosis, binds to mammalian cell integrin receptors, enabling bacterial invasion and playing a key pathogenic role. Structurally composed of multiple functional domains, it has shown promise as an alternative to Matrigel for 2D stem cell culture. Unlike Matrigel, which has batch variability and a complex composition, invasin can be recombinantly produced with consistent quality. By binding integrins, it mimics essential cell-ECM interactions for stem cell adhesion, proliferation, and pluripotency maintenance, offering a more defined and reproducible substrate to advance stem cell research and regenerative medicine.



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