

Product Information

SILu™Prot Insulin, human recombinant, expressed in *P. pastoris* SIL MS Protein Standard, ¹⁵N-labeled

Catalog Number **MSST0064**Storage Temperature **–20 °C**

Product Description

SILu™Prot Insulin is a recombinant, ¹⁵N stable isotope-labeled, human insulin (INS), expressed in *P. pastoris*. Insulin is a small protein consisting of two polypeptide chains (A chain and B Chain) interconnected by two disulfide bonds.¹

	¹⁵ N labeled Insulin (**)	Native Insulin (***)	Measured/Theoretical Mass shift (****)
A chain (*)	2408.5	2383.7	24.8/25.0
B chain (*)	3468.7	3429.9	38.8/39.0
Whole molecule	5871.2	5807.6	63.6/64.0

* Reduced form

** Average mass measured on qTOF mass spectrometer

*** Theoretical average mass

**** Theoretical mass shift assuming 100% ¹⁵N incorporation

Each vial contains 10–13 µg of SILu™Prot Insulin standard, lyophilized from a solution of 1% acetic acid. Vial content was determined by HPLC using unlabeled insulin as a calibrator. Quantitation by Amino Acid Analysis is 90% for this protein.

Purity: ≥95% (HPLC)

Heavy nitrogen incorporation efficiency: ≥97% (MS)

UniProt: P01308

Sequence Information:

A chain:

GIVEQCCTSICSLYQLENYCN

B chain: (*****)

FVNQHLCGSHLVEALYLVCGERGFFYTPKT

(*****) All amino acids are labeled with ¹⁵N except Thr³⁰
(B Chain)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein with 2% acetic acid to the final concentration of 100 µg/ml.

Storage/Stability

Store the lyophilized product at –20 °C. The product is stable for at least 2 years as supplied.

After reconstitution, it is recommended to store the protein in working aliquots at –20 °C.

Reference

1. Nikol, D.S., and Smith, L.F., Amino Acid sequence of human insulin. *Nature*, **187**, 483–485 (1960).

Legal Information

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