

PRODUCT INFORMATION

Insulin Peptide (C19S) (trifluoroacetate salt)

Item No. 45531

Formal Name:	L-seryl-L-histidyl-L-leucyl-L-valyl-L- α -glutamyl-L-alanyl-L-leucyl-L-tyrosyl-L-leucyl-L-valyl-L-serylglycyl-L- α -glutamyl-L-arginyl-glycine, trifluoroacetate salt	H—Ser—His—Leu—Val—Glu—Ala—Leu—Tyr—Leu—Val—
Synonyms:	[¹⁹ Ser] Insulin Peptide, InsB ₉₋₂₃ (C19S)	Ser—Gly—Glu—Arg—Gly—OH
Peptide Sequence:	SHLVEALYLVSGERG-OH	
MF:	C ₇₂ H ₁₁₆ N ₂₀ O ₂₃ • XCF ₃ COOH	• XCF ₃ COOH
FW:	1,629.8	
Purity:	≥95%	
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Insulin peptide (C19S) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the insulin peptide (C19S) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Insulin peptide (C19S) (trifluoroacetate salt) is sparingly soluble (1-10 mg/ml) in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of insulin peptide (C19S) (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. Insulin peptide (C19S) (trifluoroacetate salt) is slightly soluble (0.1-1 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Insulin peptide (C19S) is a peptide fragment of insulin with a single amino acid variant (SAV) of cysteine-to-serine at position 19 that corresponds to residues 32-57 of full-length insulin.¹ It is formed post-translationally via a process driven by oxidative stress in the islet microenvironment. Insulin peptide (C19S) has been identified in the islet I-Ag7 peptidome of non-obese diabetic (NOD) mice.

Reference

1. Srivastava, N., Vomund, A.N., Yu, R., *et al.* A microenvironment-driven, HLA-II-associated insulin neoantigen elicits persistent memory T cell activation in diabetes. *BioRxiv* **15**, 622538 (2025).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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