

Supplier Submission Document

Safety and Use Symbols	Handling Requirement
 GHS07	 Qualified laboratory handling only. Use appropriate PPE.

Tirzepatide RUO - Product Specification Sheet

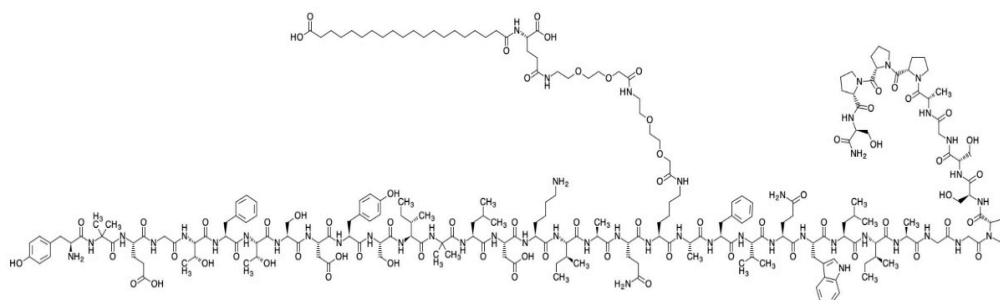
Submission-ready supplier listing document

For Research Use Only. Not for human consumption, clinical use, diagnostic use, therapeutic use, compounding, veterinary use, food use, or household use.

Product Identity

Field	Value
Product name	Tirzepatide (Research Use Only), Cat. No. FM0T01
Batch / lot number	P2729
CAS number	2023788-19-2
Molecular formula	C225H348N48O68
Molecular weight	4,813.5 g/mol
Peptide sequence	H2N-Tyr-Aib-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-Ser-Ile-Aib-Leu-Asp-Lys-Ile-Ala-Gln-Lys-(C20DA-γGlu-AEEA-AEEA)-Ala-Phe-Val-Gln-Trp-Leu-Ile-Ala-Gly-Gly-Pro-Ser-Ser-Gly-Ala-Pro-Pro-Pro-Ser-NH2
Manufacturing date	2026-03-26
Expiry / retest date	2027-03-25
Package size	10 mg vial currently in stock
Intended use	Research Use Only (RUO)

Molecular Structure



Release Specifications and Lot Results

Field	Value
Appearance	Specification/result: White powder
Mass spectrometry	Specification: 4810.5 ± 1.0 (monoisotopic mass); Result: 4810.5
Peptide sequencing	Sequence consistent with theoretical structure; Result: Confirmed
Purity	Specification: ≥ 98.5%; Result: 99.6%
Solubility	Freely soluble in water and 0.1% acetic acid
Storage conditions	Store in a tightly closed container at -20°C or below. Protect from light. Can be shipped at ambient temperature.

Related substance / impurity	Specification / Result
D-Ser8 + D-Leu14	Specification: ≤ 0.5%; Result: 0.02%
D-Ser11 + Endo-Gly4	Specification: ≤ 0.5%; Result: 0.07%
D-Trp25	Specification: ≤ 0.3%; Result: 0.18%
Glu19	Specification: ≤ 0.3%; Result: 0.05%
Glu24	Specification: ≤ 0.3%; Result: Not detected
Unknown impurity (max.)	Specification: ≤ 0.1%; Result: 0.09%
Total impurity	Specification: ≤ 1.0%; Result: 0.47%
Residual trifluoroacetic acid	Specification: ≤ 0.25%; Result: Not detected
Acetate content	Specification: ≤ 10.0%; Result: Not detected

Handling and Restrictions

- Research chemical; toxicological properties have not been fully investigated.
- Avoid inhalation, ingestion, skin contact, and eye contact.
- Drug analog peptide: not for human use, clinical use, compounding, dosing, or administration.

Product vial



Certificate of Analysis



SP2TX Inc.

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Certificate of Analysis

Product Name :	Tirzepatide (Research Use Only)	Batch No. :	P2729
Molecular Formula :	C ₂₂₅ H ₃₄₈ N ₄₈ O ₉₆ (M.W. 4813.5)	CAS No. :	2023788-19-2
Manufacturing Date :	2026. 03. 26.	Expiry Date :	2027. 03. 25.
Peptide Sequence :	H2N-Tyr-Aib-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-Ser-Ile-Aib-Leu-Asp-Lys-Ile-Ala-Gln-Lys (C20DA-γGlu-AEEA-AEEA)-Ala-Phe-Val-Gln-Trp-Leu-Ile-Ala-Gly-Gly-Pro-Ser-Ser-Gly-Ala- Pro-Pro-Pro-Ser-NH2		

Test Items	Specification	Results		
Appearance	White powder	White powder		
Identification				
Mass Spectrometry	4810.5 ± 1.0 (Monoisotopic mass)	4810.5		
Peptide Sequencing	Sequence consistent with theoretical structure	Confirmed		
Amino Acid Analysis	Asx : 1.6 ~ 2.4	Val : 0.8 ~ 1.2	Asx : 1.9	Val : 0.9
	Glx : 3.2 ~ 4.8	Phe : 1.6 ~ 2.4	Glx : 3.8	Phe : 1.9
	Ser : 4.0 ~ 6.0	Ile : 2.4 ~ 3.6	Ser : 4.2	Ile : 2.8
	Gly : 3.2 ~ 4.8	Leu : 1.6 ~ 2.4	Gly : 3.6	Leu : 1.9
	Thr : 1.6 ~ 2.4	Lys : 1.6 ~ 2.4	Thr : 1.8	Lys : 1.9
	Ala : 3.2 ~ 4.8	Pro : 3.2 ~ 4.8	Ala : 3.8	Pro : 3.8
	Aib : 1.6 ~ 2.4	Trp : Present	Aib : 1.9	Trp : Present
	Tyr : 1.6 ~ 2.4	AEFA : Present	Tyr : 2.1	AEFA : Present
Purity and Related Substances				
Purity	≥ 98.5%	99.6%		
D-Ser8 + D-Leu14	≤ 0.5%	0.02%		
D-Ser11 + Endo-Gly4	≤ 0.5%	0.07%		
D-Trp25	≤ 0.3%	0.18%		
Glu19	≤ 0.3%	0.05%		
Glu24	≤ 0.3%	Not detected		
Unknown impurity(max.)	≤ 0.1%	0.09%		
Total impurity	≤ 1.0%	0.47%		
Residual Trifluoroacetic Acid	≤ 0.25%	Not detected		
Acetate Content	≤ 10.0%	Not detected		