

Certificate of Analysis

Product	Tirzepatide	CAS No. :	2023788 - 19- 2
Product No. :	TIR	Molecular Formula	C ₂₂₅ H 348N 48O ₆ 8
Sequence	Tyr- Aib- Gln- Gly- Thr- Phe- Thr - Ser- Asp- Tyr- Ser- Ile- Aib- Le u- Leu- Asp- Lys- Lys- Gly- Pro- P ro- Ser- Ser- Gly- Ala- Pro- Pro- Pro- Ser- NH ₂		
Batch No.	TIR- 26031501	Quantity	1275.0g
Mfg. Date	Mar.13 th , 2026	Retest Date	Mar.12 ^t h, 2028

【ITEMS】	【SPECIFICATIONS】	【RESULTS】
Appearance	White or almost white loose powder	White loose powder
Solubility	Soluble in water	Conforms
Solution clarity and color	Clear and colorless liquid(C=30mg/ml)	Conforms
Identification HPLC	The retention time of the principal peak of the test solution corresponds to that of the reference solution, as obtained in the Assay.	Conforms
Mass spectrum	4813.4±1.0	4813.2
Amino acid content	Tyr:2.7~3.3 Aib:1.8~2.2 Glu:4.5~5.5 Gly:3.6~4.4 Thr:1.8~2.2 Phe:1.8~2.2 Ser:4.5~5.5 Asp:1.8~2.2 Ile:1.8~2.2 Leu:2.7~3.3 Lys:1.8~2.2 Ala:2.7~3.3 Pro:3.6~4.4	Tyr:3.0 Aib:2.0 Glu:5.0 Gly:4.1 Thr:2.0 Phe:2.0 Ser:4.9 Asp:2.0 Ile:2.0 Leu:3.0 Lys:2.0 Ala:3.0 Pro:4.0
Related substances (HPLC)	Largest peak Detected:NMT 0.5% Total Peaks Detected:NMT 2.0%	0.16% 0.76%
Purity (HPLC)	NLT 98.0%	99.30%
pH	6.5~8.5	7.2



Acid group ions	Trifluoroacetate ion NMT 0.5% Acetate ion NMT 0.5%	N. D N. D
Water content (KF)	NMT 8.0%	3.70%
Sodium ion	1.0~2.0%	1.50%
Peptide content	NLT 90.0%	93.90%
Oligomer	NMT 0.5%	N. D
Residual solvent	Methylene chloride NMT 600ppm Acetonitrile NMT 410ppm Methyl tert-butyl ether NMT 5000 ppm DMF NMT 880ppm	N. D 62ppm N. D N. D
Bacterial endotoxins	NMT 5EU/mg	< 3EU/mg
Microbial Limits	Total aerobic bacteria ≤ 100 cfu/g Mould & Yeast ≤ 10 cfu/g Bile tolerant enterobacteria: absence in 1g Pseudomonas aeruginosa: absence in 1g Staphylococcus aureus: absence in 1g	Confor ms Confor ms absent absent absent
Assay	95.0%- 105.0% (Calculated on anhydrous, ion-free basis)	99.10%
Storage	Keep in tight container, protect from light, store at a temperature of $-20 \pm 5^{\circ}\text{C}$	
Report	Li peng	Date: Mar. 13 , 2026
Reviewer	Pang Hailun	Date: Mar. 13 , 2026



Conclusion This batch of product complies with enterprise Standard.
It is only

