



Certificate of Analysis

Product Name		Tirzepatide		
CAS. No.		2023788-19-2	Batch No.	NBT-251003
Molecular Formula		C₂₂₅H₃₄₈N₄₈O₆₈	Molecular Weight	4813.45
Mfg. Date		2025.10.06	Retest Date	2027.10.05
Report Date		2025.10.29	Quantity	5KG
Test			Specification	Result
1	Characteristics	Appearance/Colors	White or almost white powder	White powder
2		Solubility	Freely soluble in water	Conforms
3		Solution Clarity and Color	Clear and colorless	Conforms
4	Peptide Content	Peptide Content	≥85.0%	93.6%
5	Inspection	Amino Acid Content	Asp: 1.6~2.4	1.9
			Tyr: 1.6~2.4	1.8
			Lys: 1.6~2.4	2.0
			Ile: 2.4~3.6	3.0
			Leu: 1.6~2.4	2.1
			Val: 0.8~1.2	1.0
			Thr: 1.6~2.4	1.9
			Phe: 1.6~2.4	2.0
			Ser: 4.0~6.0	4.5
			Ala: 3.2~4.8	4.0
			Gly: 3.2~4.8	4.0
			Glu: 3.2~4.8	4.5
			Pro: 3.2~4.8	3.3
			Aib: N/A	--
			AEEA: N/A	--
6		Identification by HPLC	The retention time of the principal peak of the test solution corresponds to that of the reference solution	Conforms



7		Water Content (K.F)	≤ 8.0%	5.8%
8		pH	6.0-8.0	7.0
9		Purity (HPLC)	≥99.0%	99.4%
10		Related Substance (HPLC)	Maximum single impurity ≤0.5%	0.2%
			Total impurities ≤1.0%	0.6%
11		High Molecular Protein	≤0.50%	ND
12		Residual Solvent	Acetonitrile≤410 ppm	14ppm
			Methanol≤3000 ppm	ND
13		Bacterial Endotoxins	< 10 EU/mg	Conforms
14		Microbial Limits	TAMC≤ 100cfu/g	Conforms
			TYMC≤100cfu/g	Conforms
15		Trifluoroacetate Ion	≤1000 ppm	ND
16		Acetate Ion	≤1000 ppm	ND
17		Assay (HPLC)	95.0-105.0% (on anhydrous and salt-free substance basis)	99.2%
Storage		Preserve in an air tight container, protected from light at a temperature of -20°C, and shipping at a temperature of 2-8°C		
Conclusion		The product tested Conform with In-house standard		
Remark		It is only supplied as chemical product		

QC: Jin Xian

Reviewer: Xie Meican

Checker: Tan Yuying