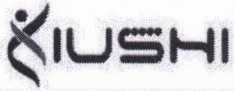


## CERTIFICATE OF ANALYSIS

<b>Product Name</b>	Tirzepatide		
<b>Batch No.</b>	P20240508D	<b>CAS No.</b>	2023788-19-2
<b>Molecular Formula</b>	$C_{225}H_{348}N_{48}O_{68}$	<b>Molecular Weight</b>	4813.45
<b>Mfg. Date</b>	2024.05.08	<b>Expiry Date</b>	2026.05.07
<b>Quantity</b>	1KG	<b>Shipping Qty</b>	1KG
<b>Sequence</b>	Tyr-{Aib}-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-Ser-Ile-{Aib}-Leu-Asp-Lys-Ile-Ala-Gln-{diacid-C20-gamma-Glu-(AEEA)2-Lys}-Ala-Phe-Val-Gln-Trp-Leu-Ile-Ala-Gly-Gly-Pro-Ser-Ser-Gly-Ala-Pro-Pro-Pro-Ser-NH <sub>2</sub>		
<b>Items</b>	<b>Specification</b>	<b>Results</b>	
<b>Appearance/ Colors</b>	White or almost white powder	White powder	
<b>Solubility</b>	Freely soluble in water	Conforms	
<b>Identification by HPLC</b>	The retention time of the principal peak of the test solution corresponds to that of the reference solution, as obtained in the assay	Conforms	
<b>Molecular Ion Mass by MS</b>	$4813.45 \pm 1.0$	4813.44	
<b>Amino Acid Content</b>	Asp: 1.6~2.4 Tyr: 1.6~2.4 Lys: 1.6~2.4 Ile: 2.0~3.2 Leu: 1.6~2.4 Val: 0.8~1.2 Thr: 1.6~2.4 Phe: 1.6~2.4 Ser: 4.0~6.0 Ala: 3.2~4.8 Gly: 3.2~4.8 Glu: 3.2~4.8 Pro: 3.2~4.8 Aib: N/A AEEA: N/A	1.9 1.8 2.0 2.1 2.1 1.0 1.9 2.0 4.5 4.0 4.0 4.5 3.3 -- --	



<b>Water Content (K.F)</b>	≤ 8.0%	5.2%
<b>Solution Clarity and Color</b>	Clear and colorless	Conforms
<b>Purity (HPLC)</b>	≥ 99.0%	99.7%
<b>Related Substance (HPLC)</b>	Total impurities ≤ 1.0%	0.3%
	Maximum single impurity ≤ 0.5%	0.2%
<b>Assay (HPLC)</b>	95.0-105.0% (on anhydrous and salt-free substance basis)	99.2%
<b>High Molecular Protein</b>	≤ 0.50%	ND
<b>Residual Solvent</b>	Acetonitrile ≤ 410 ppm	0.005 ppm
	Methanol ≤ 3000 ppm	ND
<b>Bacterial Endotoxins</b>	≤ 10 EU/mg	Conforms
<b>Microbial Limits</b>	TAMC ≤ 10 <sup>3</sup> cfu/g	Conforms
	TYMC ≤ 10 <sup>2</sup> cfu/g	
<b>Trifluoroacetate Ion</b>	≤ 0.10%	ND
<b>Sodium Ion</b>	≤ 5.0%	1.6%
<b>Acetate Ion</b>	≤ 0.10%	ND
<b>Phosphate Ion</b>	≤ 0.10%	ND
<b>Peptide Content</b>	≥ 85.0%	92.13%
<b>Storage</b>	Preserve in tight containers. Store at a temperature -15°C to -25°C	
<b>Conclusion</b>	The product tested Conform with In-house standard	



QC: Liu Ao

Reviewer: Sheng Jiahao

Checker: Jan Yingying