

Certificate of Analysis

Product	Gonadorelin (GnRH)	CAS No.:	33515-09-2
Product No.:	GND2	Molecular Formula	C ₅₅ H ₇₃ N ₁₇ O ₁₃
Sequence	pGlu-His-Trp-Ser-Tyr-Gly-Leu-Arg-Pro-Gly-NH ₂ Decapeptide; N-terminal pyroglutamate (pGlu); C-terminal amide (acetate salt)		
Molecular Weight	1182.31	Quantity	25.0g
Batch No.	GND2-2803C	Storage Temp.	-20±5°C
Mfg. Date	Oct.7 th , 2026	Retest Date	Oct.7 th , 2028

【ITEMS】		【SPECIFICATIONS】	【RESULTS】
Appearance		White or almost white powder	White powder
Solubility		Soluble in water	Conforms
Solution clarity and color		Clear and colorless liquid	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	1182.3±1.0	1181.9
Amino acid content		pGlu (pyroglutamate): should be detected	Detected
		His: 0.9~1.1	1.0
		Trp: should be detected	Detected
		Ser: 0.9~1.1	1.0
		Tyr: 0.9~1.1	1.0
		Gly: 1.8~2.2	2.0
		Leu: 0.9~1.1	1.0
		Arg: 0.9~1.1	1.0
Related substances (HPLC)		Pro: 0.9~1.1	1.0
		Largest single impurity: NMT 1.0%	0.30%
		Total impurities: NMT 2.0%	1.19%
Purity (HPLC)		NLT 99.0%	99.18%
pH		4.0~7.0	6.1
Acid group ions		Trifluoroacetate ion (TFA residue): NMT 1.0%	N.D
		Acetate ion (acetic acid, counter-ion): NMT 15.0%	6.7%
Water content (KF)		NMT 8.0%	3.6%
Peptide content		NLT 80.0%	88.6%
Residual solvent		Acetonitrile NMT 410ppm	144ppm
		Methanol NMT 3000ppm	N.D
		Methyl tert-butyl ether NMT 5000ppm	N.D
Bacterial endotoxins		NMT 10EU/mg	3.8EU/mg
Microbial Limits		Total aerobic bacteria ≤100cfu/g	Conforms
		Mould & Yeast ≤10cfu/g	Conforms
		Bile tolerant enterobacteria: absence in 1g	absent
		Pseudomonas aeruginosa: absence in 1g	absent
		Staphylococcus aureus: absence in 1g	absent
Assay		95.0%~105.0% (Calculated on anhydrous, acetate-free basis)	98.5%
Storage		Keep in light container, protect from light, store at a temperature of -20±5°C.	
Report			Date: Jun. 22 th , 2026
Reviewer			Date: Jun. 22 th , 2026
Conclusion: This batch of product complies with Enterprise Standard.			

It is only supplied as chemical product.
It is only for R&D use.

合格