

Tesamorelin

Tesamorelin is a stabilized synthetic analogue of human growth hormone releasing hormone. It is FDA-approved as Egrifta for reducing excess abdominal fat in adults with HIV-associated lipodystrophy.



■ Hydrophobic
 ■ Acidic
 ■ Basic
 ■ Polar
 ■ Gly, Pro, Cys
 ■ Non-standard

Length	44 residues
Formula	C ₂₂₁ H ₃₆₆ N ₇₂ O ₆₇ S
Average mass	5,135.78 g/mol
Monoisotopic mass	5,132.7166 Da
Evidence	Approved drug
US status	FDA-approved (Egrifta)
WADA	Prohibited (S2)

Full-length GHRH(1-44) amide with an N-terminal trans-3-hexenoyl group.

Expected ions (monoisotopic)

[M+H] ⁺	[M+2H] ²⁺	[M+3H] ³⁺	[M+4H] ⁴⁺
5,133.7239	2,567.3656	1,711.9128	1,284.1864

What the COA should show

A COA should confirm identity by mass spectrometry, with the observed mass matching the expected mass shown on this page, and report purity by reverse-phase HPLC. The N-terminal trans-3-hexenoyl group must be present: material lacking it is native GHRH(1-44), and cis/trans isomers of the acyl group may also need to be distinguished. As a 44-residue peptide containing methionine and asparagine, tesamorelin is prone to oxidation, deamidation and deletion impurities from synthesis, and it can aggregate. Counter-ion (acetate) and net peptide content should be stated.

Storage and stability

Store lyophilized tesamorelin sealed and protected from light; for research material, -20 °C is the standard long-term condition, and vials should equilibrate to room temperature before opening. In solution the peptide is susceptible to methionine oxidation, deamidation and aggregation, so reconstituted laboratory material should be refrigerated, used promptly and not shaken vigorously. Aliquot to avoid repeated freeze-thaw cycles. Approved drug product should be stored according to its labeling.