

ARA-290 (cibinetide)

ARA-290 (cibinetide) is an 11-residue synthetic peptide modeled on a surface region of erythropoietin. It was designed to engage tissue-protective signaling without stimulating red blood cell production and has been studied in early clinical trials of neuropathy.



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

Length	11 residues
Formula	C ₅₁ H ₈₄ N ₁₆ O ₂₁
Average mass	1,257.31 g/mol
Monoisotopic mass	1,256.5997 Da
Evidence	Early clinical studies
US status	Not FDA-approved for any use
WADA	Check the current Prohibited List

11 residues with an N-terminal pyroglutamate; derived from the helix B surface of erythropoietin.

Expected ions (monoisotopic)

[M+H] ⁺	[M+2H] ²⁺	[M+3H] ³⁺	[M+4H] ⁴⁺
1,257.6070	629.3071	419.8738	315.1572

What the COA should show

A certificate of analysis should confirm identity by mass spectrometry, with the observed mass matching the expected mass shown on this page, and report reverse-phase HPLC purity with the chromatogram. The N-terminal pyroglutamate is a key quality point: material with an open-chain N-terminal glutamine or glutamate differs in mass (pyroglutamate formation from glutamine involves loss of ammonia, about 17 Da), so the COA should confirm the cyclized form. Deamidation of the Gln or Asn residues (+1 Da) is a possible degradation route. The counter-ion and net peptide content should be stated.

Storage and stability

Store lyophilized ARA-290 sealed at -20 °C or colder, protected from light and moisture, and let vials reach room temperature before opening. The sequence lacks cysteine, methionine and tryptophan, so oxidation is a minor concern, but the asparagine and glutamine residues can deamidate in solution, particularly at neutral to basic pH and higher temperatures. Prepare solutions for lab use in sterile water or buffer, keep them refrigerated for short-term work, aliquot for longer storage at -20 °C or below, and avoid repeated freeze-thaw cycles.