

Noopept

Noopept is a dipeptide-derived small molecule, N-phenylacetyl-L-prolylglycine ethyl ester, developed in Russia as a nootropic research compound. It has been studied mostly in rodent models, with limited clinical data, and is not approved by the FDA.

Formula	C ₁₇ H ₂₂ N ₂ O ₄
Average mass	318.37 g/mol
Evidence	Early clinical studies
US status	Not FDA-approved
WADA	Check the current Prohibited List

N-phenylacetyl-L-prolylglycine ethyl ester: a dipeptide-derived small molecule.

What the COA should show

Because noopept is a small molecule rather than a peptide, a certificate of analysis should confirm identity by mass spectrometry against the expected mass of N-phenylacetyl-L-prolylglycine ethyl ester, ideally supported by NMR or infrared spectroscopy. Purity should be reported by HPLC with the chromatogram. Specific pitfalls include hydrolysis of the ethyl ester to the free acid, which appears as a distinct related-substance peak, and the stereochemical purity of the L-proline residue. Residual solvents from synthesis should also be reported.

Storage and stability

Store solid noopept in a tightly sealed container at room temperature or below, protected from light and moisture; refrigeration or -20 °C storage is reasonable for long-term reference material. The ethyl ester is susceptible to hydrolysis, particularly in aqueous solution and at elevated pH, so prepare solutions shortly before use, keep them cold, and avoid prolonged storage in water. Allow cold containers to warm before opening to prevent condensation.

Full entry, references and latest research: <https://peptidewiki.net/compounds/noopept/>
For laboratory research reference only. Not medical advice; not for human or veterinary use.