

PeIA-5466: A novel peptide antagonist containing non-natural amino acids that selectively targets $\alpha 3\beta 2$ nicotinic acetylcholine receptors

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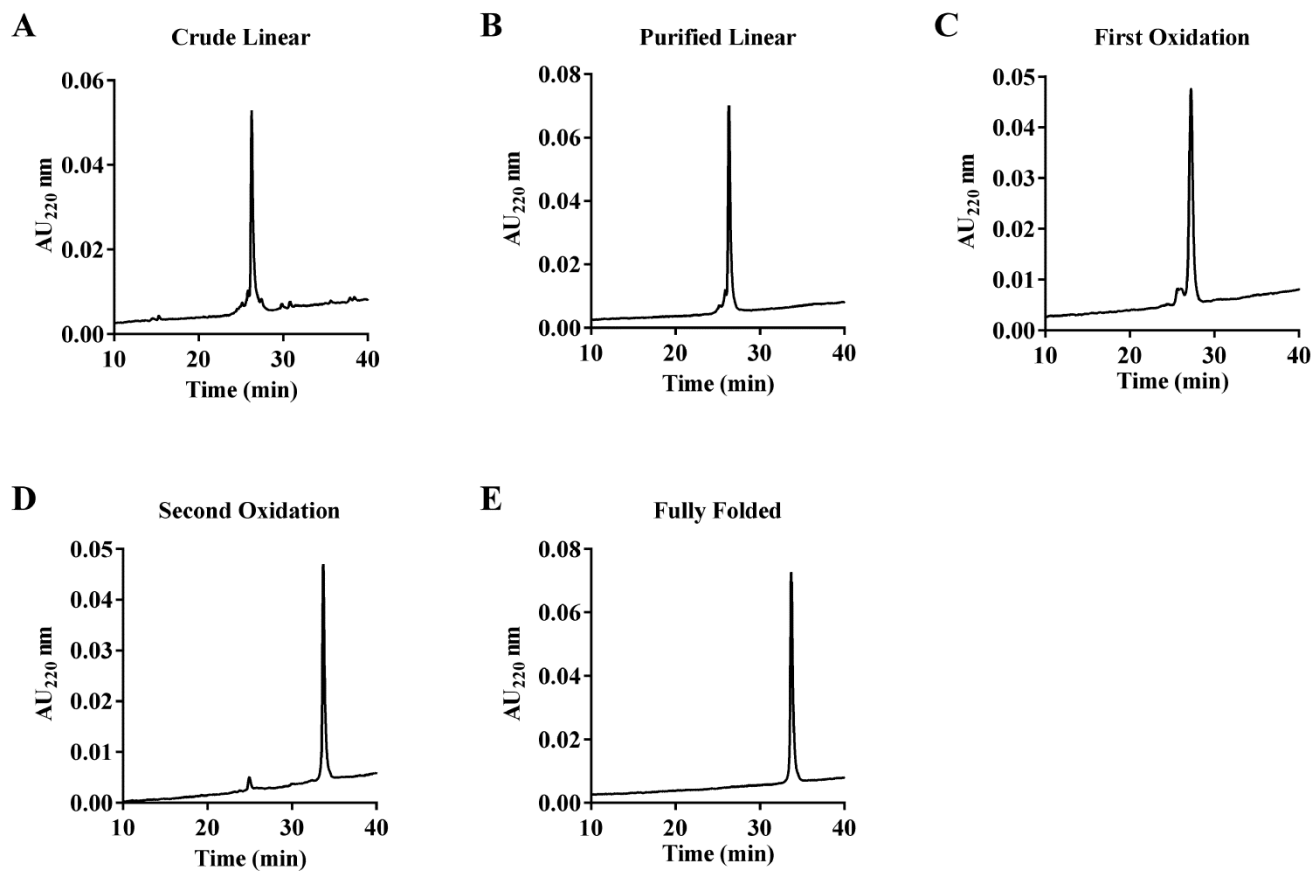
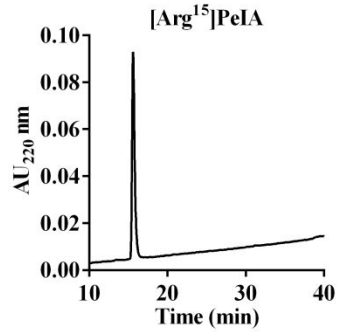
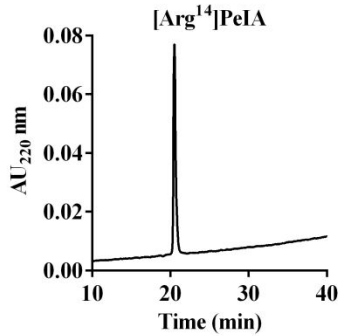
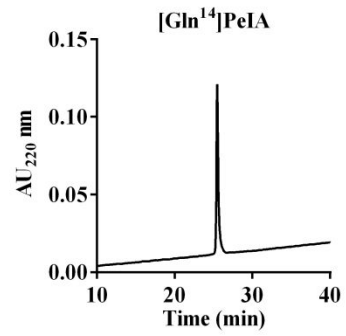
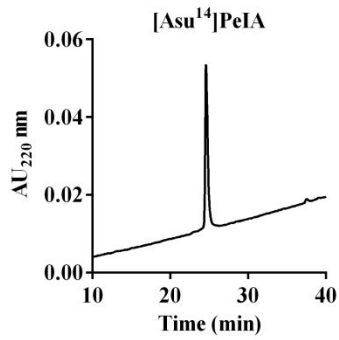
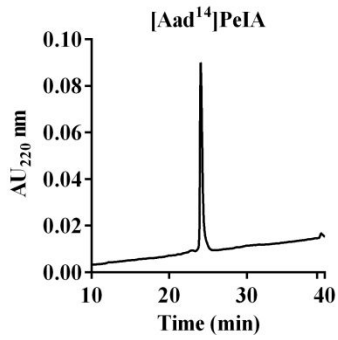
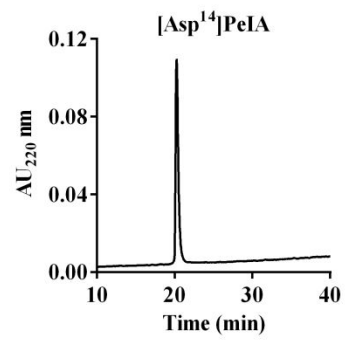
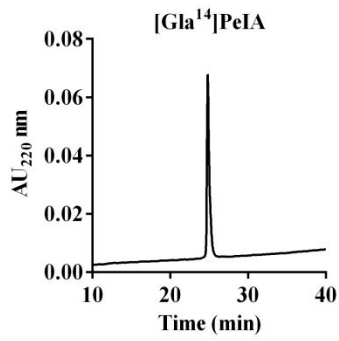
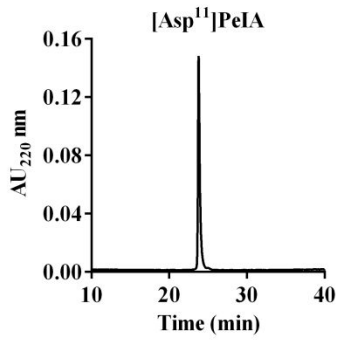
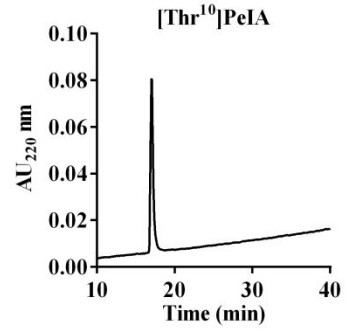
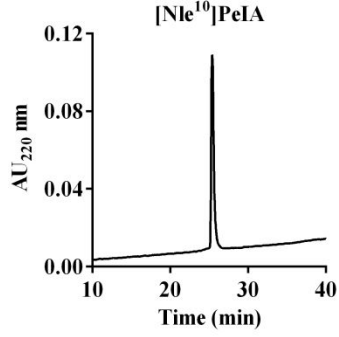
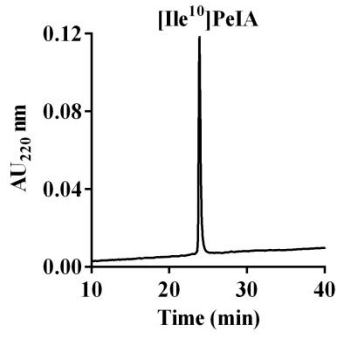
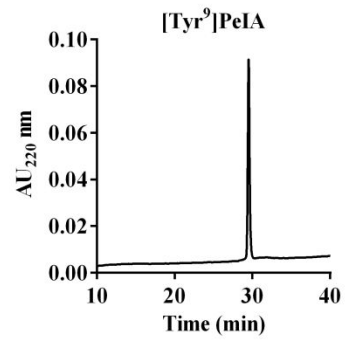
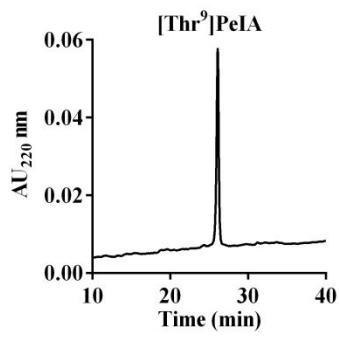
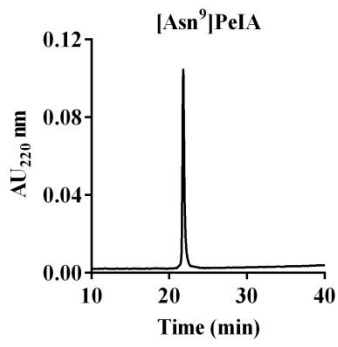


Figure 1. RP-HPLC chromatograms illustrating the synthesis, folding, and purity analysis of PeIA-5466. (A) crude linear peptide, (B) purified linear peptide, (C) first-step oxidative folding leading to the first disulfide bond (Cys²-Cys⁸) formation, (D) second-step oxidative folding leading to the second disulfide bond (Cys³-Cys¹⁶) formation, (E) purity analysis of the fully folded peptide. The solvent gradient used in all steps was 10% to 50% B60 in 40 min on analytical C18-column (Vydac, 5 μ M, 250x4.6 mm) (solvent A: 0.1% TFA in water; solvent B: 60% acetonitrile (ACN) 0.092% TFA, 40% water).



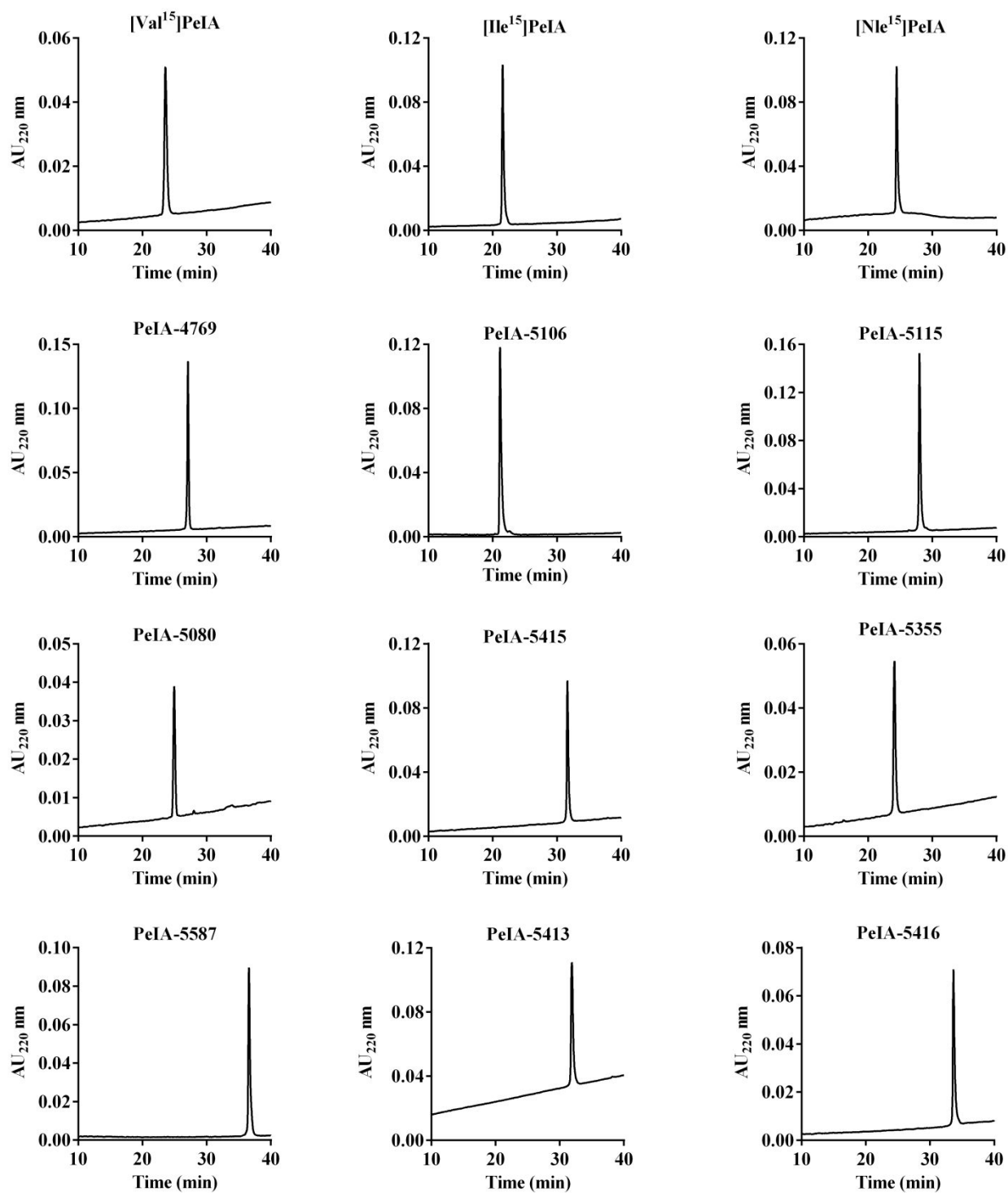


Figure 2. RP-HPLC chromatograms showing the purity of all fully folded peptides. The solvent gradient for all peptides was 10% to 50% B60 in 40 min on analytical C18-column (Vydac, 5 μ M, 250x4.6 mm) (solvent A: 0.1% TFA in water; solvent B: 60% acetonitrile (ACN) 0.092% TFA, 40% water). Purity percentages are provided in Table 2.