

ABSTRACT

Arginine-vasopressin, a nonapeptide amide, was synthesized on a benzhydryl-resin using the Boc-strategy. Benzyl group was used in the protection of sulfhydryl group of cysteine and tyrosine side-chain. Benzhydryl, tetralinyl and tosyl groups were used in the protection of glutamine, asparagine and arginine side-chains respectively. TFMSA-TFA-thioanisole-1,2-ethanedithiol (2:20:2:1 v/v) was used to cleave the peptide from the resin under different conditions to obtain arginine-vasopressin in a one-pot reaction. The cleavage at 40°C for two hours gave arginine-vasopressin quantitatively (77% yield)

Keywords: Solid-Phase Peptide Synthesis, resin, protecting group, cleavage, nonapeptide