

Microwave heating promotes the S-Alkylation of Aziridine catalyzed by Molecular Sieves: post-synthetic approach to lanthionine-containing peptides

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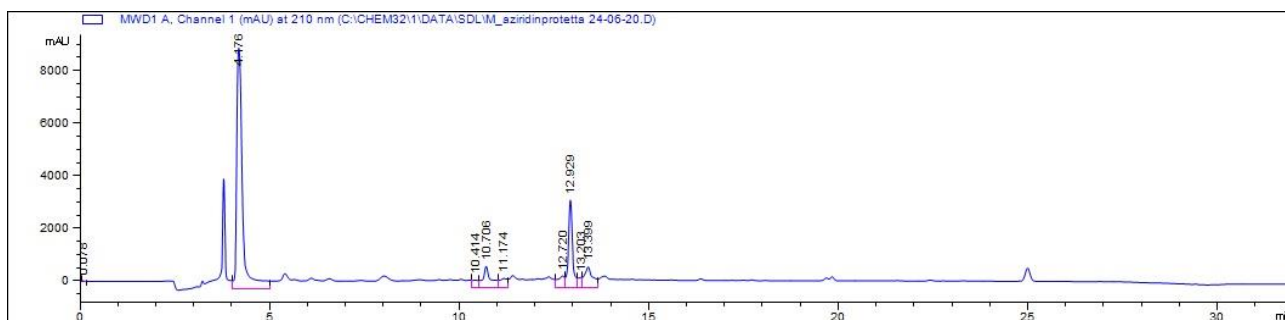
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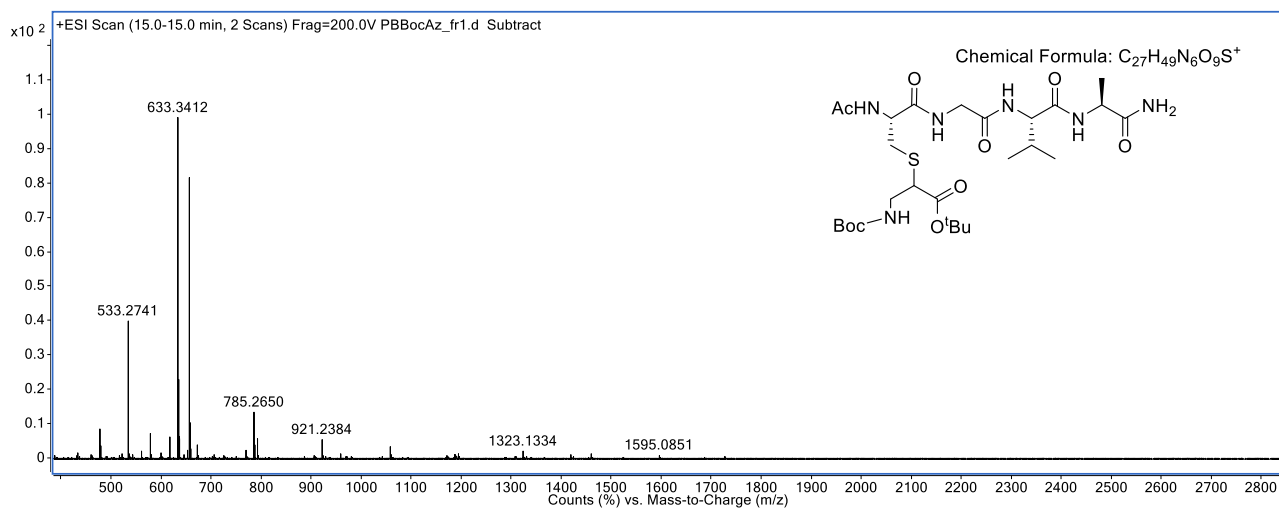
Compound 1a strategy A

AcLanGlyValAlaNH₂

A. HPLC profile of the reaction crude product:



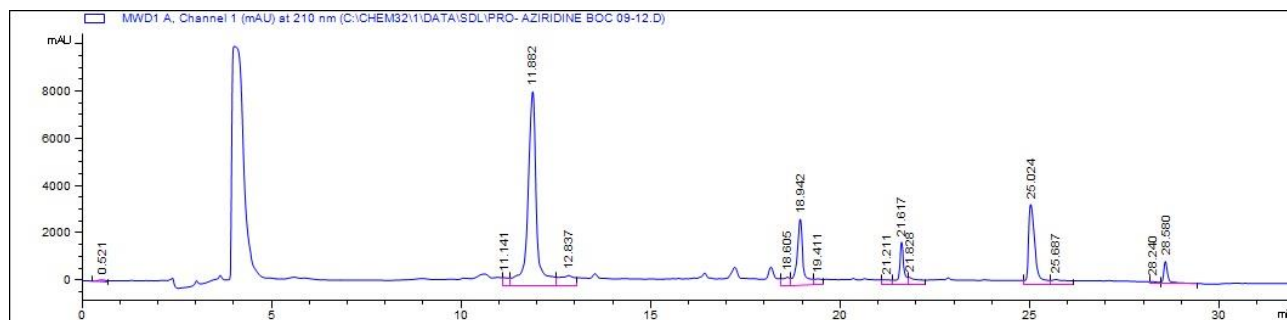
B. MS spectrum of **1a** after purification:



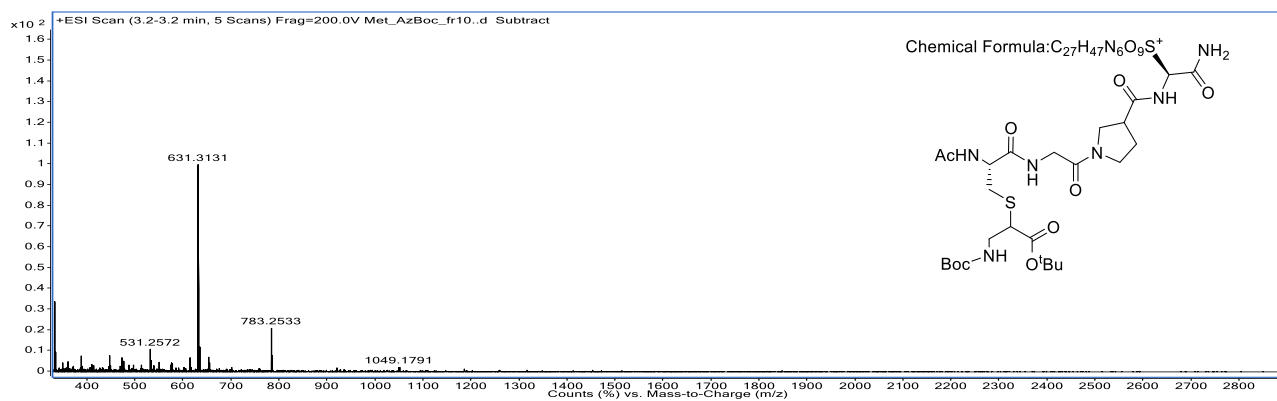
Compound 2a strategy A

AcLanGlyProAlaNH₂

A. HPLC profile of the reaction crude product:

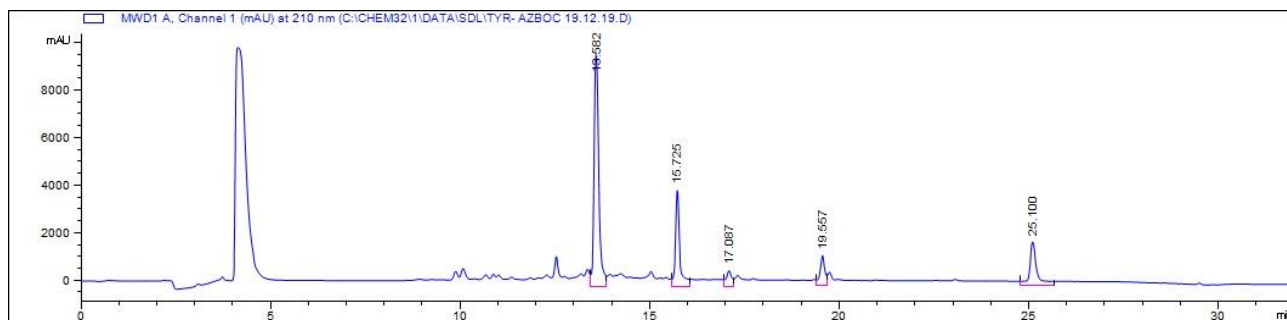


B. MS spectrum of **2a** after purification:



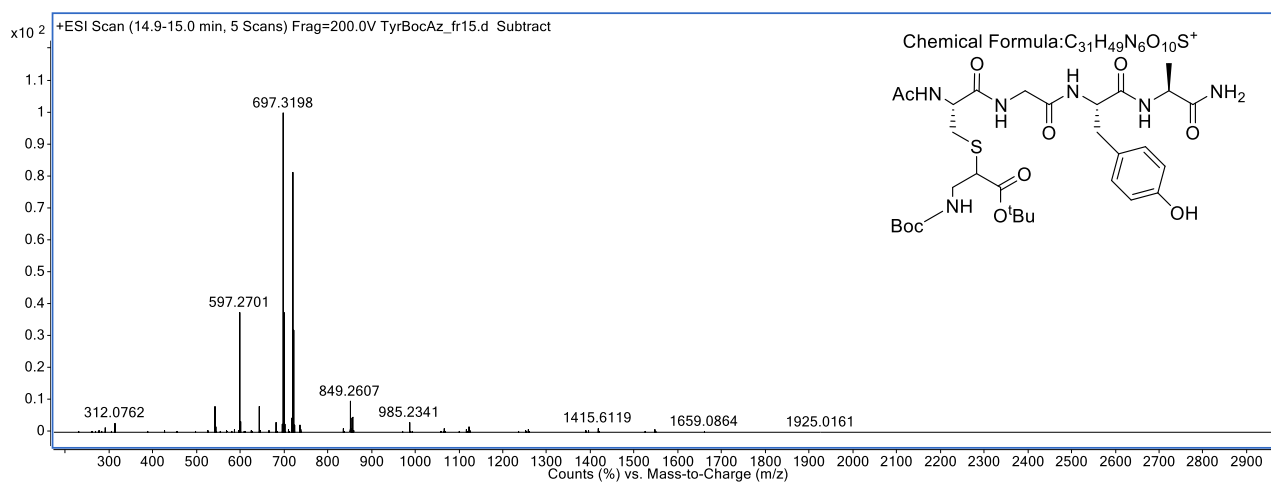
Compound 3a strategy A

AcLanGlyTyrAlaNH₂



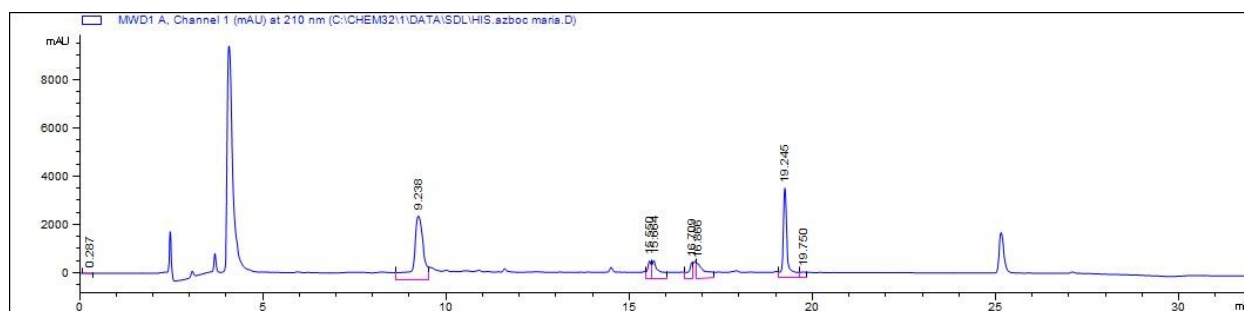
A. HPLC profile of the reaction crude product:

B. MS spectrum of **3a** after purification:

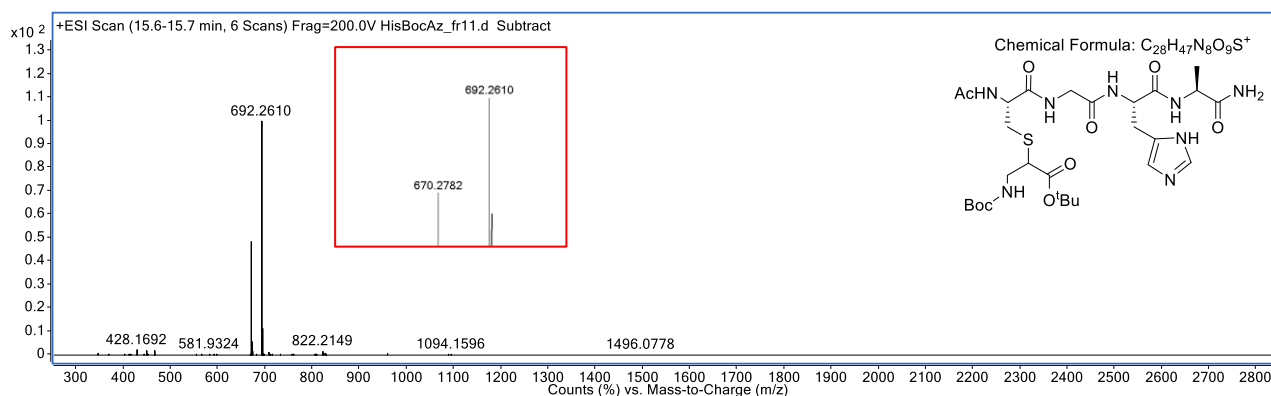


Compound 4a strategy A
Ac**Lan**GlyHisAlaNH₂

A. HPLC profile of the reaction crude product:



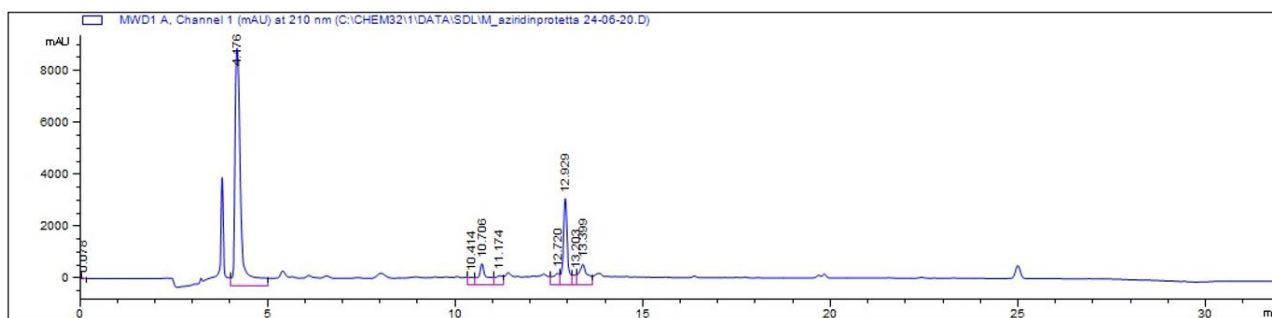
B. MS spectrum of **4a** after purification:



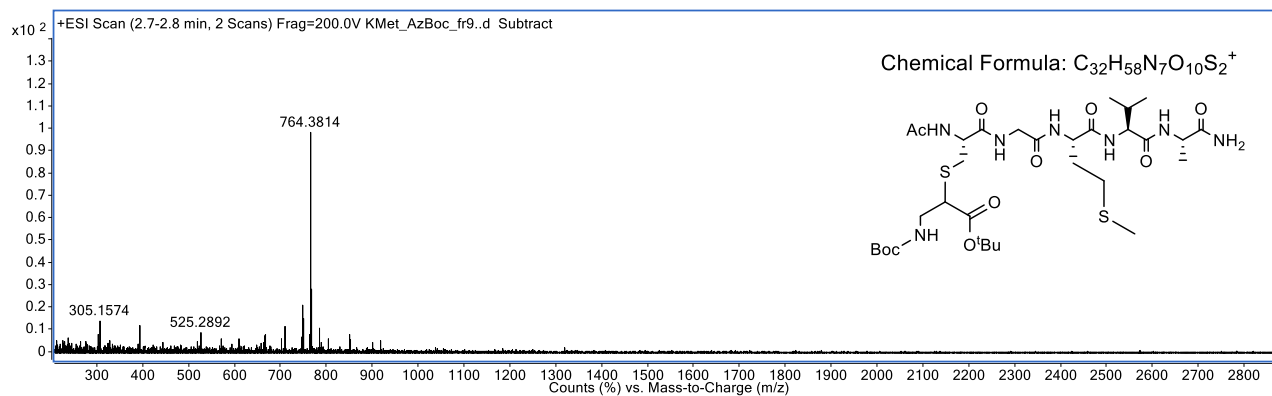
Compound 5a strategy A

AcLanGlyMetValAlaNH₂

A. HPLC profile of the reaction crude product:



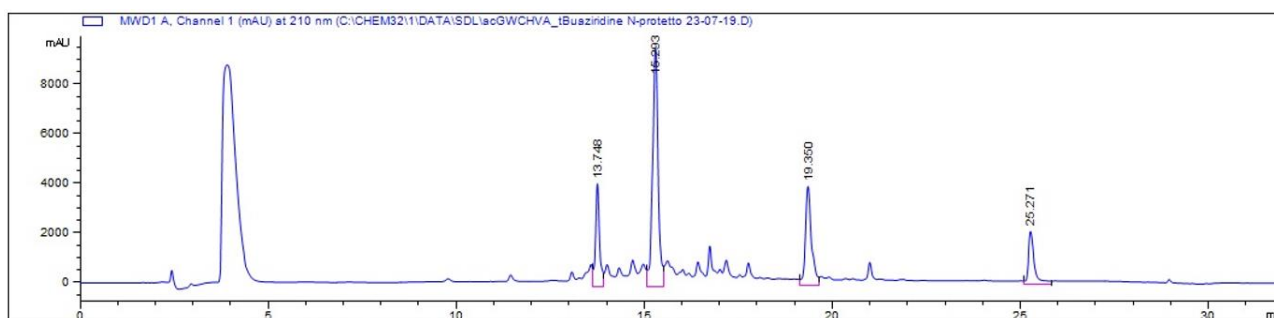
B. MS spectrum of **5a** after purification:



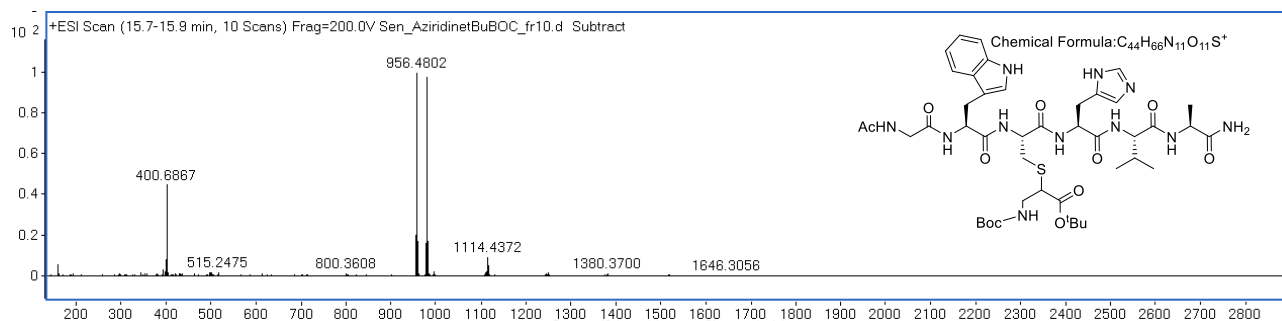
Compound 6a strategy A

AcGlyTrpLanHisValAlaNH₂

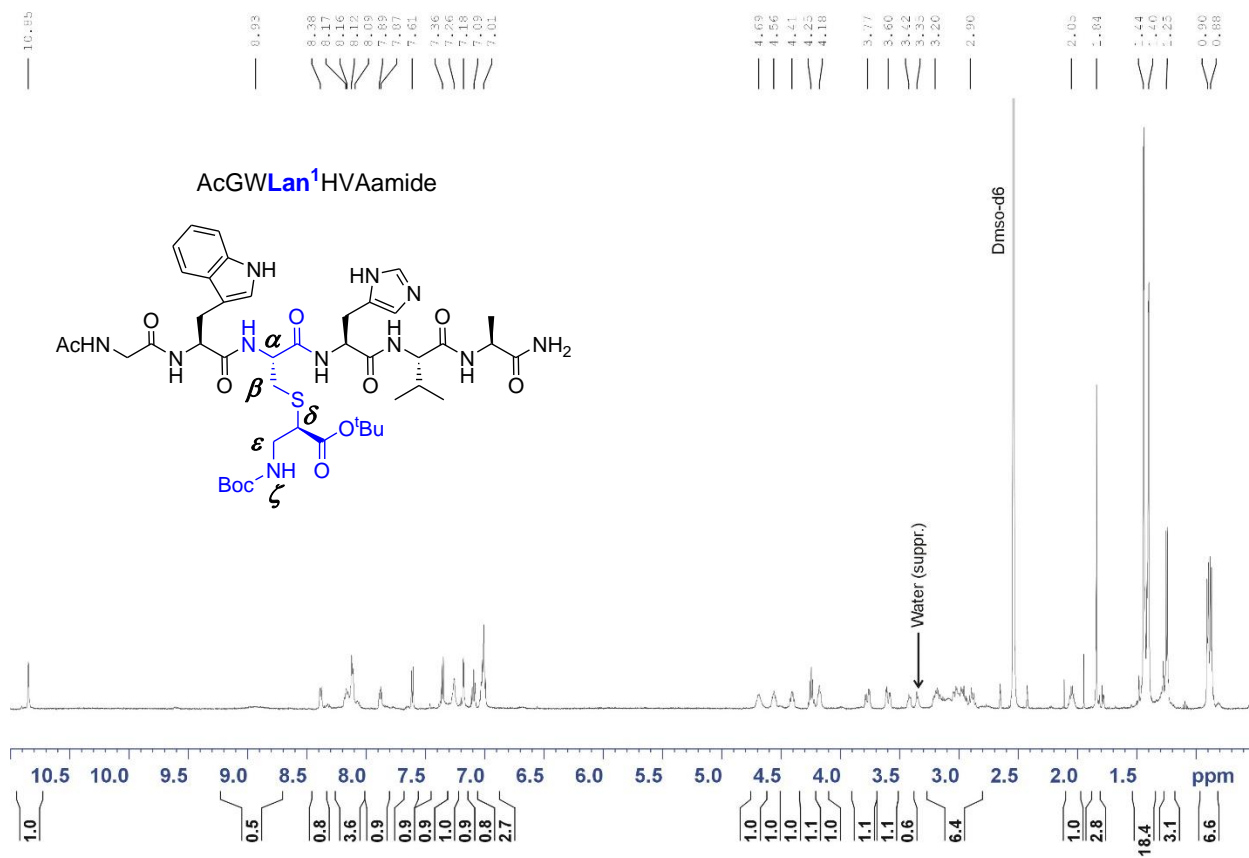
A. HPLC profile of the reaction crude product:



B. MS spectrum of **6a** after purification:

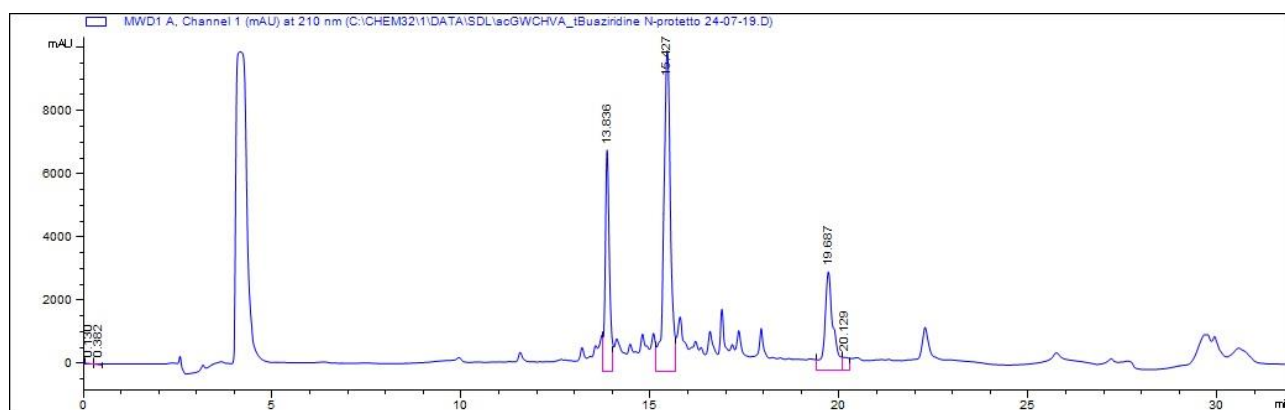


C. ^1H -NMR (600 MHz, $\text{dms}\text{-d}_6$, 300 K).



Compound 6a strategy B
AcGlyTrp**Lan**HisValAlaNH₂

A. HPLC profile of the reaction crude product:



Abbreviations

Boc: *Tert*-butoxycarbonyl

DBU: 1,8-diazabicyclo[5.4.0]undec-7-ene

DCM: Dichloromethane

DIPEA: Diisopropylethylamine

DMF: *N,N*-Dimethylformamide

DMSO-*d*₆: Dimethylsulfoxide-*d*₆

Fmoc: 9-Fluorenylmethoxycarbonyl

HOBt: *N*-hydroxybenzotriazole

PyBOP: Benzotriazol-1-yl-oxy-tris-pyrrolidino-phosphonium

*t*Bu: *Tert*-butyl

TFA: Trifluoroacetic acid

TEA: Triethylamine

TIS: Triisopropylsilane