Supplementary Material

Structure Activity Relationship study for substrate based inhibitors of human complement factor B.

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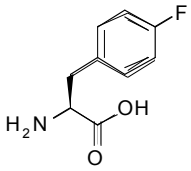
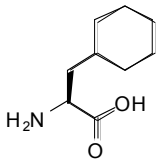
Figure S1. Structures of non-natural amino acids[1] used in the synthesis of aldehyde peptides tested as inhibitors of factor B.



4-fluoro-phenyl-L-alanine (F(4-F))



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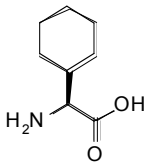

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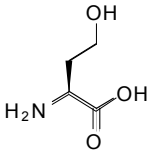
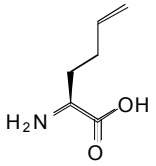


L-homoserine (Hse)



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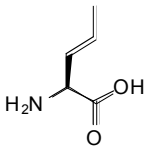
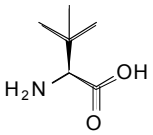
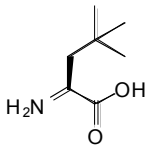


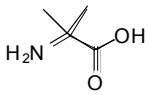
L-norvaline (Nva)



L-α-*t*-butylglycine (Tbg)



L-β-*t*-butylalanine (Tba)



α-aminoisobutyric acid (Aib)

MATERIALS AND METHODS

Abbreviations. DCM, dichloromethane; DIPEA, N,N-diisopropylethylamine; DMF, N,N-dimethylformamide; ESMS, electrospray mass spectrometry; NMR, Nuclear Magnetic Resonance Spectroscopy; TFA, trifluoroacetic acid. Abbreviations used for amino acids are according to the rules of the IUPAC-IUB in Jones, J. H.[1]

Chemical Synthesis. Protected amino acids and resins were obtained from Auspep, Novabiochem and PepChem. TFA, piperidine, DIPEA, DCM and DMF (peptide synthesis grade) were purchased from Auspep. All other materials were reagent grade unless otherwise stated. Crude peptides were purified by reverse-phase HPLC on Waters 486 system equipped with a Rheodyne semi-preparative injector with a 5 mL loop volume on a Phenomenex Luna C18 15 μm column, 250 mm x 22 mm, at 20 mL/min using linear gradient elution over 30 min (solvent A is water and 0.1% TFA; solvent B is 90% MeCN, 10% water, and 0.1% TFA) and UV detection at 214 nm. Purity of compounds ≥95% assessed via analytical rpHPLC (Waters 996 on a Phenomenex Luna C18 5 μm column, 250 x 4 mm, at 1 mL/min using the same linear gradient over 20 min and then, 100 % B for 10 min), mass spectrometry and NMR. The molecular weight of the peptides was determined by electrospray mass spectrometry on a Micromass LCT mass spectrometer. ^{1}H NMR spectra were recorded on samples containing 1-5 mg peptide in H_2O/D_2O (90:10) or DMSO-d_6 (600 μL) on Bruker Avance 600 spectrometer at 298 K.

Aldehyde inhibitors were prepared by the method of Siev *et al*. using Fmoc protocols,[2] and characterised by analytical high performance liquid chromatography, mass spectrometry and 1D and 2D ^{1}H NMR spectroscopy. All inhibitors were re-checked for racemisation by ^{1}H NMR spectroscopy immediately prior to assay.

(**2**) Ac-AHLGLAR-H (R_t = 14.0 min): ESMS [M+H] = 763.6. HR-ESMS calcd for $C_{34}H_{59}N_{12}O_8$ $[M+H]^+$ =763.4573, found 763.4551.

(**3**) Ac-LHLGLAR-H (R_t = 15.2 min): ESMS [M+H] = 805.6. HR-ESMS calcd for $C_{37}H_{65}N_{12}O_8$ $[M+H]^+$ =805.5043, found 805.5063.

(**4**) Ac-FHLGLAR-H (R_t = 15.7 min): ESMS [M+H] = 839.5, $[M+H+H_2O]$ = 857.5. HR-ESMS calcd for $C_{40}H_{63}N_{12}O_8$ $[M+H]^+$ =839.4886, found 839.4866.

(**5**) Ac-F(4-F)HLGLAR-H (R_t = 15.6 min): ESMS [M+H] = 857.7. HR-ESMS calcd for $C_{40}H_{62}FN_{12}O_8$ $[M+H]^+$ =857.4792, found 857.4765.

(**6**) Ac-YHLGLAR-H (R_t = 14.6 min): ESMS [M+H] = 855.4. HR-ESMS calcd for $C_{40}H_{63}N_{12}O_9$ $[M+H]^+$ =855.4835, found 855.4812.

(**7**) Ac-KHLGLAR-H (R_t = 13.6 min): ESMS [M+H] = 820.4. HR-ESMS calcd for $C_{37}H_{66}N_{13}O_8$ $[M+H]^+$ =820.5152, found 820.5132.

(**8**) Ac-THLGLAR-H (R_t = 14.1 min): ESMS [M+H] = 793.5. HR-ESMS calcd for $C_{35}H_{61}N_{12}O_9$ $[M+H]^+$ =793.4679, found 793.4699.

(**9**) AcHseHLGLAR-H (R_t = 14.5 min): ESMS [M+H] = 793.6. HR-ESMS calcd for $C_{35}H_{61}N_{12}O_9$ $[M+H]^+$ =793.4679, found 793.4700.

(**10**) Ac-PHLGLAR-H (R_t = 14.4 min): ESMS [M+H] = 789.4. HR-ESMS calcd for $C_{36}H_{61}N_{12}O_8$ $[M+H]^+$ =789.4730, found 789.4710.

(**11**) Ac-SHLALAR-H (R_t = 13.5 min): ESMS [M+H] = 793.6, $[M+H+H_2O]$ = 811.6. HR-ESMS calcd for $C_{35}H_{61}N_{12}O_9$ $[M+H]^+$ =793.4679, found 793.4699.

(**12**) Ac-SHLAibLAR-H (R_t = 14.5 min): ESMS [M+H] = 807.9. HR-ESMS calcd for $C_{36}H_{63}N_{12}O_9$ $[M+H]^+$ =807.4835, found 807.4844.

(**13**) Ac-SHLLLAR-H (R_t = 15.3 min): ESMS [M+H] = 835.8. HR-ESMS calcd for $C_{38}H_{67}N_{12}O_9$ $[M+H]^+$ =835.5148, found 835.5122.

(**14**) Ac-SHLChaLAR-H (R_t = 15.9 min): ESMS [M+H] = 875.9, [M+H-H_2O] = 857.9. HR-ESMS calcd for $C_{41}H_{71}N_{12}O_9$ $[M+H]^+$ =875.5461, found 875.5442.

(**15**) Ac-SHLTbgLAR-H (R_t = 14.6 min): ESMS [M+H] = 835.8. HR-ESMS calcd for $C_{38}H_{67}N_{12}O_9$ $[M+H]^+$ =835.5148, found 835.5127.

(**16**) Ac-SHLKLAR-H (R_t = 13.7 min): ESMS [M+H] = 850.9, [M+H-H_2O] = 832.9. HR-ESMS calcd for $C_{38}H_{68}N_{13}O_9$ $[M+H]^+$ =850.5257, found 850.5232.

(**17**) Ac-SHLHLAR-H (R_t = 13.8 min): ESMS [M+H] = 859.8, [M+H-H_2O] = 841.8. HR-ESMS calcd for $C_{38}H_{63}N_{14}O_9$ $[M+H]^+$ =859.4897, found 859.4871.

(**18**) Ac-SHLFLAR-H (R_t = 15.2 min): ESMS [M+H] = 869.9, [M+H-H_2O] = 851.9. HR-ESMS calcd for $C_{41}H_{65}N_{12}O_9$ $[M+H]^+$ =869.4992, found 869.4978.

(**19**) Ac-SHLWLAR-H (R_t = 15.4 min): ESMS [M+H] = 908.9, [M+H-H_2O] = 890.9. HR-ESMS calcd for $C_{43}H_{66}N_{13}O_9$ $[M+H]^+$ =908.5101, found 908.5087.

(**20**) Ac-SHLYLAR-H (R_t = 14.5 min): ESMS [M+H] = 885.8, [M+H-H_2O] = 867.8. HR-ESMS calcd for $C_{41}H_{65}N_{12}O_{10}$ $[M+H]^+$ =885.4941, found 885.4918.

(**21**) Ac-SHNleLLAR-H (R_t = 14.3 min): ESMS [M+H] = 835.8, [M+H+H_2O] = 853.8. HR-ESMS calcd for $C_{38}H_{67}N_{12}O_9$ $[M+H]^+$ =835.5148, found 835.5120.

(**22**) Ac-SHTbgLLAR-H (R_t = 14.2 min): ESMS [M+H] = 835.9, [M+H-H_2O] = 817.9. HR-ESMS calcd for $C_{38}H_{67}N_{12}O_9$ $[M+H]^+$ =835.5148, found 835.5122.

(**23**) Ac-SHVLLAR-H (R_t = 14.1 min): ESMS [M+H] = 821.5. HR-ESMS calcd for $C_{37}H_{65}N_{12}O_9$ $[M+H]^+$ =821.4992, found 821.4978.

(**24**) Ac-SHFLLAR-H (R_t = 14.8 min): ESMS [M+H] = 869.4. HR-ESMS calcd for $C_{41}H_{65}N_{12}O_9$ $[M+H]^+$ =869.4992, found 869.4977.

(**25**) Ac-SHALLAR-H (R_t = 13.7 min): ESMS [M+H] = 793.4. HR-ESMS calcd for $C_{35}H_{61}N_{12}O_9$ $[M+H]^+$ =793.4679, found 793.4658.

(**26**) Ac-SHELLAR-H (R_t = 14.5 min): ESMS [M+H] = 851.6. HR-ESMS calcd for $C_{37}H_{63}N_{12}O_{11}$ $[M+H]^+$ =851.4739, found 851.4760.

(**27**) Ac-SHKLLAR-H (R_t = 13.4 min): ESMS [M+H] = 850.9. HR-ESMS calcd for $C_{38}H_{68}N_{13}O_9$ $[M+H]^+$ =850.5257, found 850.5232.

(**28**) Ac-LLAR-H (R_t = 15.7 min): ESMS [M+H] = 498.6, [M+H-H_2O] = 480.6. HR-ESMS calcd for $C_{23}H_{44}N_7O_5$ $[M+H]^+$ =498.3398, found 498.3410.

(**29**) Ac-LLLAR-H (R_t = 16.8 min): ESMS [M+H] = 611.7, [M+H-H_2O] = 593.7. HR-ESMS calcd for $C_{29}H_{55}N_8O_6$ $[M+H]^+$ =611.4239, found 611.4219.

(**30**) Ac-HLLLAR-H (R_t = 14.9 min): ESMS [M+H] = 748.9. HR-ESMS calcd for $C_{35}H_{62}N_{11}O_7$ $[M+H]^+$ =748.4828, found 748.4845.

(**31**) Ac-RLLLAR-H (R_t = 15.2 min): ESMS [M+H] = 767.9. HR-ESMS calcd for $C_{35}H_{67}N_{12}O_7$ $[M+H]^+$ =767.5250, found 767.5280.

(**32**) Ac-RLLLAF-H (R_t = 17.4 min): ESMS [M+H] = 758.6, [M+H+H_2O] = 776.6. HR-ESMS calcd for $C_{38}H_{64}N_9O_7$ $[M+H]^+$ =748.4923, found 748.4947.

(**33**) Ac-RLLLAK-H (R_t = 14.8 min): ESMS [M+H] = 739.9. HR-ESMS calcd for $C_{35}H_{67}N_{10}O_7$ $[M+H]^+$ =739.5189, found 739.5196.

(**34**) Ac-RLLLGR-H (R_t = 14.9 min): ESMS [M+H] = 753.8. HR-ESMS calcd for $C_{34}H_{65}N_{12}O_7$ $[M+H]^+$ =753.5094, found 753.5119.

(**35**) Ac-RLLLLR-H (R_t = 16.3 min): ESMS [M+H] = 809.6. HR-ESMS calcd for $C_{38}H_{73}N_{12}O_7$ $[M+H]^+$ =809.5720, found 809.5755.

(**36**) Ac-RLLLVR-H (R_t = 15.7 min): ESMS [M+H] = 795.9. HR-ESMS calcd for $C_{37}H_{71}N_{12}O_7$ $[M+H]^+$ =795.5563, found 795.5599.

(**37**) Ac-RLLLNvaR-H (R_t = 15.9 min): ESMS [M+H] = 795.5. HR-ESMS calcd for $C_{37}H_{71}N_{12}O_7$ $[M+H]^+$ =795.5563, found 795.5591.

(**38**) Ac-RLLLNleR-H (R_t = 16.3 min): ESMS [M+H] = 809.5. ESMS calcd for $C_{38}H_{73}N_{12}O_7$ $[M+H]^+$ =809.5720, found 809.5752.

(**39**) Ac-RLLLKR-H (R_t = 14.4 min): ESMS [M+H] = 824.7. HR-ESMS calcd for $C_{38}H_{74}N_{13}O_7$ $[M+H]^+$ =824.5829, found 824.5869.

(**40**) Ac-RLLNleAR-H (R_t = 15.4 min): ESMS [M+H] = 767.5. HR-ESMS calcd for $C_{35}H_{67}N_{12}O_7$ $[M+H]^+$ =767.5250, found 767.5270.

(**41**) Ac-RLLChaAR-H (R_t = 16.3 min): ESMS [M+H] = 807.7. HR-ESMS calcd for $C_{38}H_{71}N_{12}O_7$ $[M+H]^+$ =807.5563, found 807.5540.

(**42**) Ac-RLLAibAR-H (R_t = 14.8 min): ESMS [M+H] = 739.7. HR-ESMS calcd for $C_{33}H_{63}N_{12}O_7$ $[M+H]^+$ =739.4937, found 739.4919.

(**43**) Ac-RLLTbaAR-H (R_t = 15.2 min): ESMS [M+H] = 781.9. HR-ESMS calcd for $C_{36}H_{69}N_{12}O_7$ $[M+H]^+$ =781.5407, found 781.5422.

(**44**) Ac-RLLTbgAR-H (R_t = 14.6 min): ESMS [M+H] = 767.6. HR-ESMS calcd for $C_{35}H_{67}N_{12}O_7$ $[M+H]^+$ =767.5250, found 767.5230.

(**45**) Ac-RLLPAR-H (R_t = 14.1 min): ESMS [M+H] = 751.7. HR-ESMS calcd for $C_{34}H_{63}N_{12}O_7$ $[M+H]^+$ =751.4937, found 751.4918.

(**46**) Ac-ALLLAR-H (R_t = 16.7 min): ESMS [M+H] = 682.5. HR-ESMS calcd for $C_{32}H_{60}N_9O_7$ $[M+H]^+$ =682.4610, found 682.4624.

(**47**) Ac-ChaLLLAR-H (R_t = 20.0 min): ESMS [M+H] = 764.6. HR-ESMS calcd for $C_{38}H_{70}N_9O_7$ $[M+H]^+$ =764.5393, found 764.5377.

(**48**) Ac-YLLLAR-H (R_t = 17.2 min): ESMS [M+H] = 774.6. HR-ESMS calcd for $C_{38}H_{64}N_9O_8$ $[M+H]^+$ =774.4872, found 774.4894.

(**49**) Ac-KLLLAR-H (R_t = 15.1 min): ESMS [M+H] = 739.5. HR-ESMS calcd for $C_{35}H_{67}N_{10}O_7$ $[M+H]^+$ =739.5189, found 739.5199.

(**50**) Ac-K(Ac)LLLAR-H (R_t = 16.3 min): ESMS [M+H] = 781.9. HR-ESMS calcd for $C_{37}H_{69}N_{10}O_8$ $[M+H]^+$ =781.5294, found 781.5271.

(**51**) Ac-RLTbaLAR-H (R_t = 15.7 min): ESMS [M+H] = 781.6. HR-ESMS calcd for $C_{36}H_{69}N_{12}O_7$ $[M+H]^+$ =781.5407, found 781.5416.

(**52**) Ac-RLNleLAR-H (R_t = 15.5 min): ESMS [M+H] = 767.6. HR-ESMS calcd for $C_{35}H_{67}N_{12}O_7$ $[M+H]^+$ =767.5250, found 767.5271.

(**53**) Ac-RLHleLAR-H (R_t = 16.3 min): ESMS [M+H] = 781.8. HR-ESMS calcd for $C_{36}H_{69}N_{12}O_7$ $[M+H]^+$ =781.5407, found 781.5413.

(**54**) Ac-RLFLAR-H (R_t = 15.6 min): ESMS [M+H] = 801.6. HR-ESMS calcd for $C_{38}H_{65}N_{12}O_7$ $[M+H]^+$ =801.5094, found 801.5074.

(**55**) Ac-RLChaLAR-H (R_t = 16.4 min): ESMS [M+H] = 807.6. HR-ESMS calcd for $C_{38}H_{71}N_{12}O_7$ $[M+H]^+$ =807.5563, found 807.5559.

(**56**) Ac-RLS(Bzl)LAR-H (R_t = 16.0 min): ESMS [M+H] = 831.9. HR-ESMS calcd for $C_{39}H_{67}N_{12}O_8$ $[M+H]^+$ =831.5199, found 831.5180.

(**57**) Ac-RLSLAR-H (R_t = 14.3 min): ESMS [M+H] = 741.6. HR-ESMS calcd for $C_{32}H_{61}N_{12}O_8$ $[M+H]^+$ =741.473, found 741.4752.

(**58**) Ac-RLTLAR-H (R_t = 14.7 min): ESMS [M+H] = 755.8. HR-ESMS calcd for $C_{33}H_{63}N_{12}O_8$ $[M+H]^+$ =755.4886, found 755.4898.

(**59**) Ac-YLTbaLAR-H (R_t = 18.4 min): ESMS [M+H] = 788.5. HR-ESMS calcd for $C_{39}H_{66}N_9O_8$ $[M+H]^+$ =788.5029, found 788.5005.

(**60**) Ac-FLTbaLAR-H (R_t = 19.6 min): ESMS [M+H] = 772.5. HR-ESMS calcd for $C_{39}H_{66}N_9O_7$ $[M+H]^+$ =772.508, found 772.5062.

(**61**) Ac-F(4-F)LTbaLAR-H (R_t = 19.8 min): ESMS [M+H] = 790.6. HR-ESMS calcd for $C_{39}H_{65}FN_9O_7$ $[M+H]^+$ =790.4986, found 790.4999.

(**62**) Ac-RLTbaTbaAR-H (R_t = 16.6 min): ESMS [M+H] = 795.5. HR-ESMS calcd for $C_{37}H_{71}N_{12}O_7$ $[M+H]^+$ =795.5563, found 795.5589.

(**63**) Ac-RLTbaNleAR-H (R_t = 16.3 min): ESMS [M+H] = 781.6. HR-ESMS calcd for $C_{36}H_{69}N_{12}O_7$ $[M+H]^+$ =781.5407, found 781.5421.

(**64**) Ac-RLTbaChgAR-H (R_t = 16.2 min): ESMS [M+H] = 807.6. HR-ESMS calcd for $C_{38}H_{71}N_{12}O_7$ $[M+H]^+$ =807.5563, found 807.5560.

Note: NMR and HPLC of arginine aldehyde peptides. Arginine aldehydes are present in equilibrium structures as free arginine aldehyde form, aldehyde hydrated form (in aqueous solution) and two epimeric cyclic aldimin hydrate forms (Figure S2). Different structures can give different response in rpHPLC[3] as well as is observed in NMR spectra.[4,5] The existence of equilibrium for arginine aldehyde has been demonstrated by rpHPLC and analyzed by NMR spectroscopy. The single peaks **I** and **II** for the arginine aldehyde Ac-RLLLVR-H (**36**) used as example were collected in acidic solution conditions and after lyophilization, isolated component with the other was observed (Figures S3-S6). These results are consistent with the argine aldehyde equilibria.

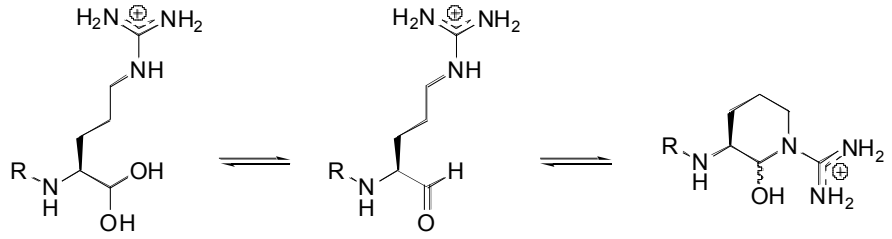


Figure S2. Equilibria forms of arginine aldehydes.

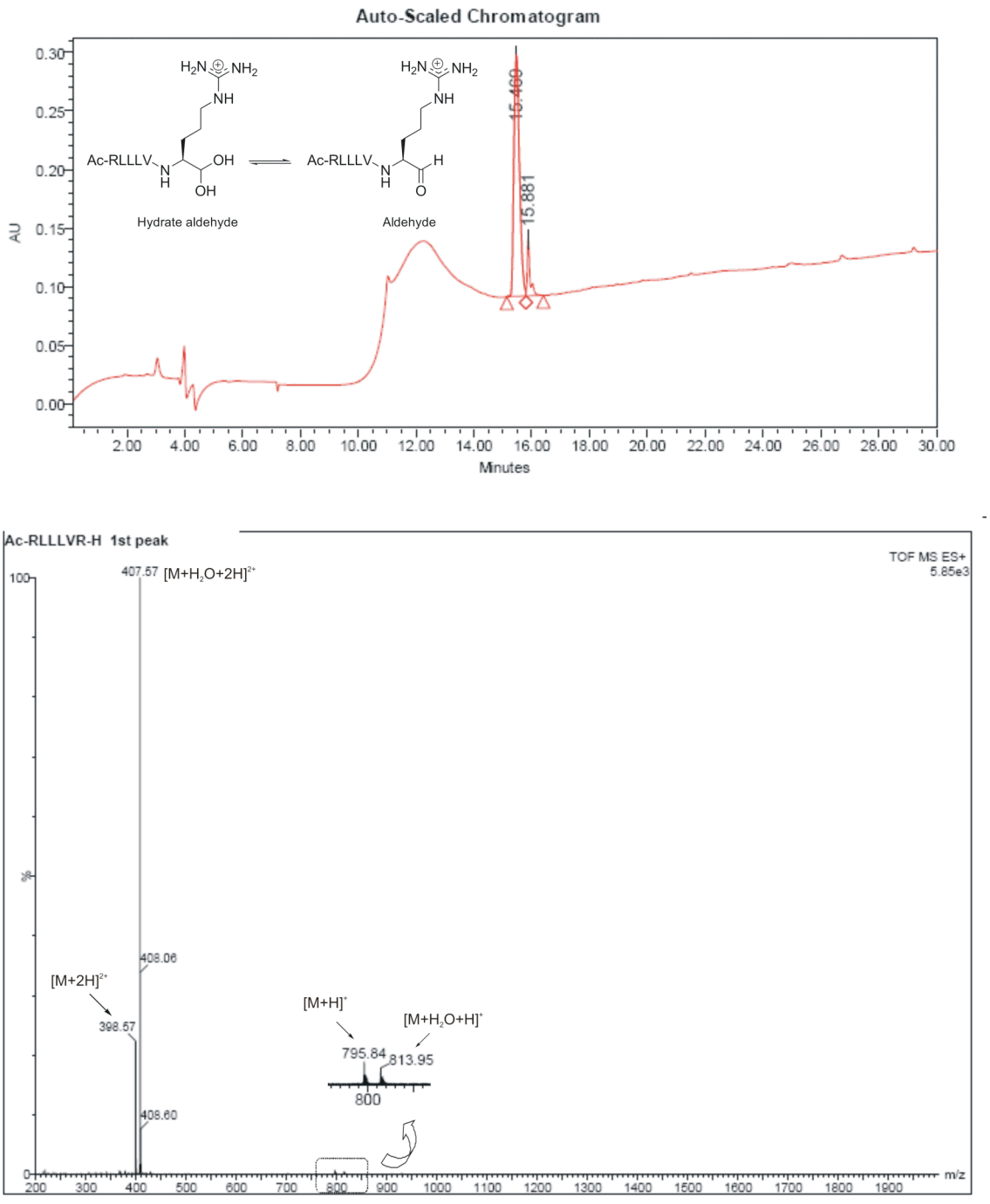


Figure S3. Chromatogram of Ac-RLLLVR-H (**36**) at λ 214 nm and mass spectrum for the first peak collected.

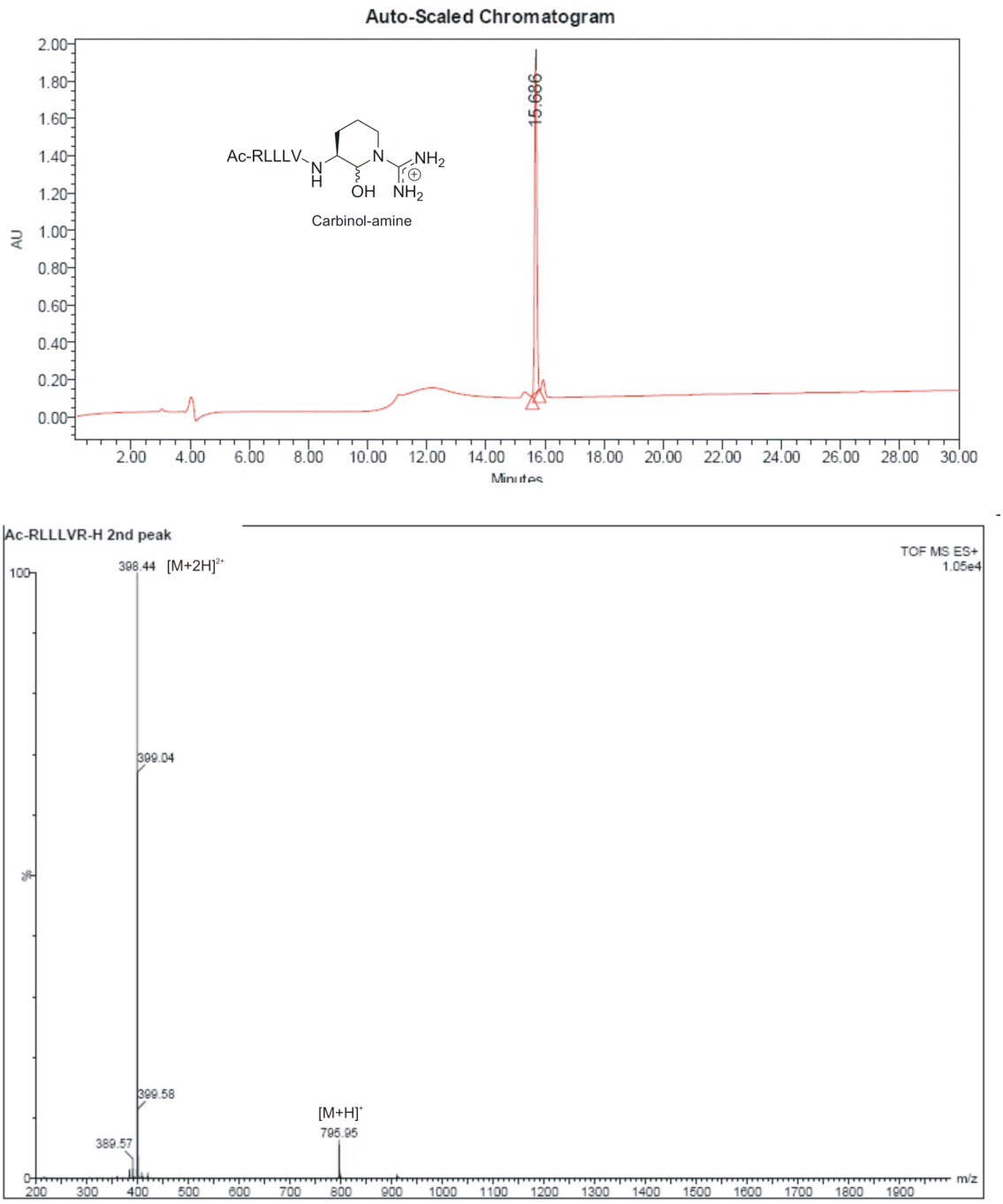


Figure S4. Chromatogram of Ac-RLLLVR-H (**36**) at λ 214 nm and mass spectrum for the second peak collected.

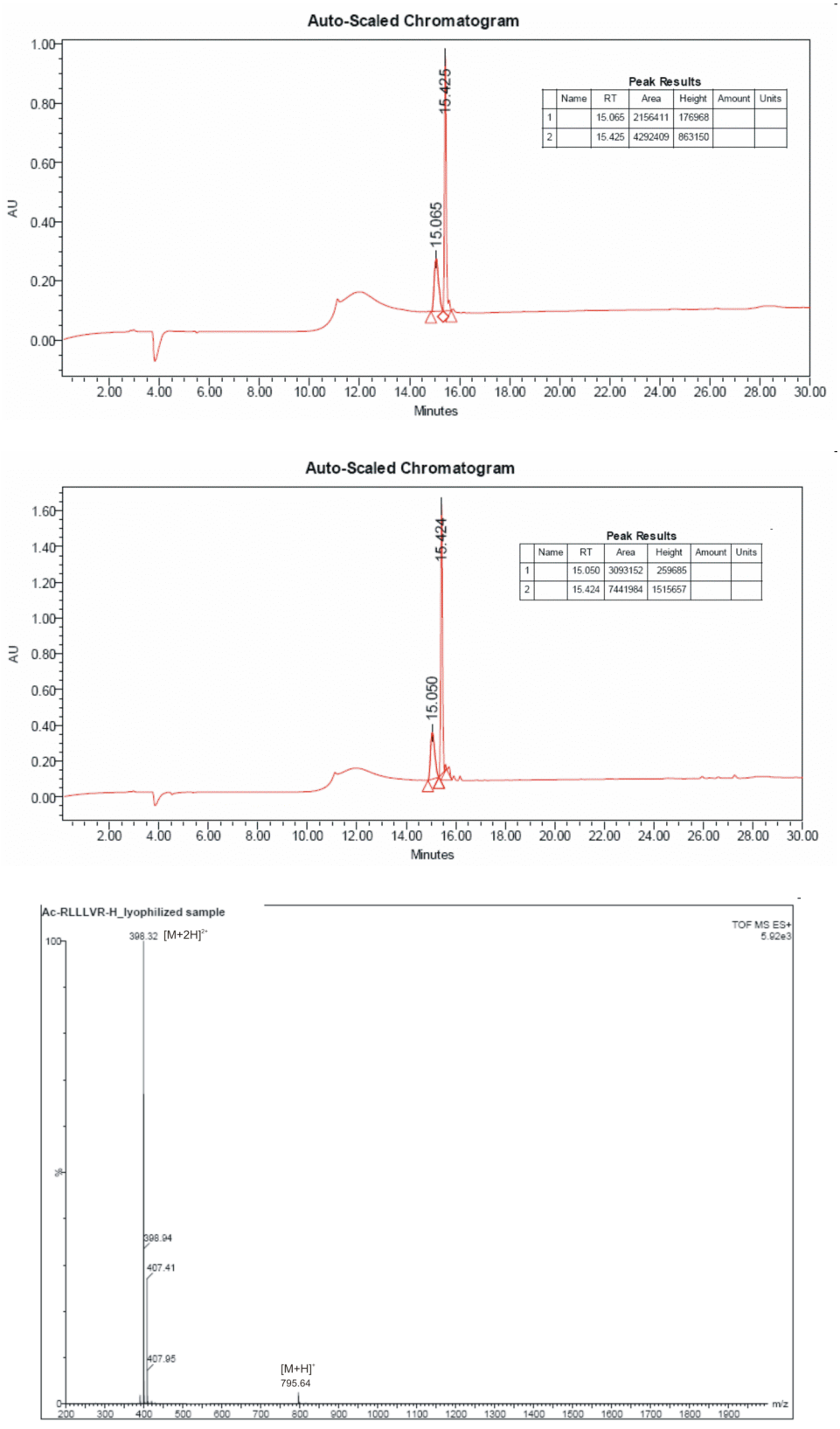


Figure S5. Chromatograms of Ac-RLLLVR-H (**36**) at λ 214 nm for the first (top) and second peak (middle) lyophilized samples. Similar ratio **I**:**II** is observed for each sample. Mass spectra acquired show the same mass peaks (bottom).

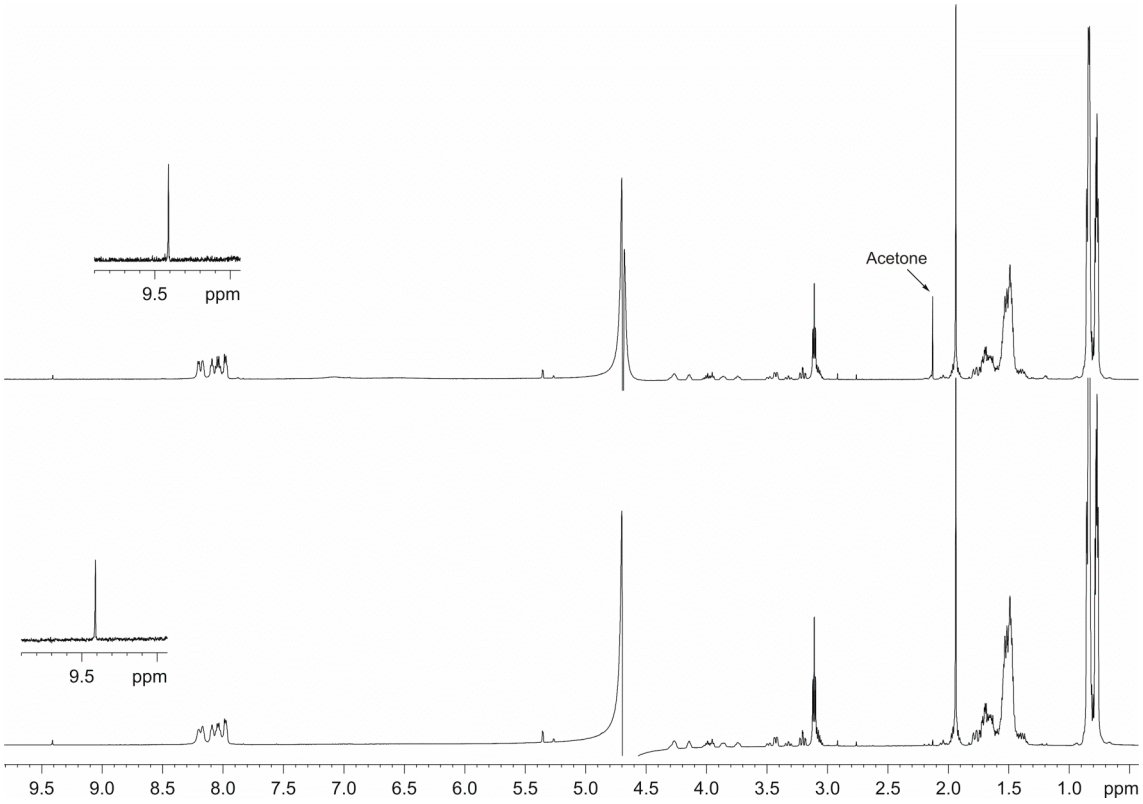


Figure S6. ^{1}H watergate NMR (600.13 MHz) spectra measured in 90% H_2O: 10% D_2O of Ac-RLLLVR-H (**36**) lyophilized from the peak **I** sample (top) and peak **II** sample (bottom). Both spectra are exactly the same, consistent with the chromatograms obtained for each lyophilized sample (Figure S5).

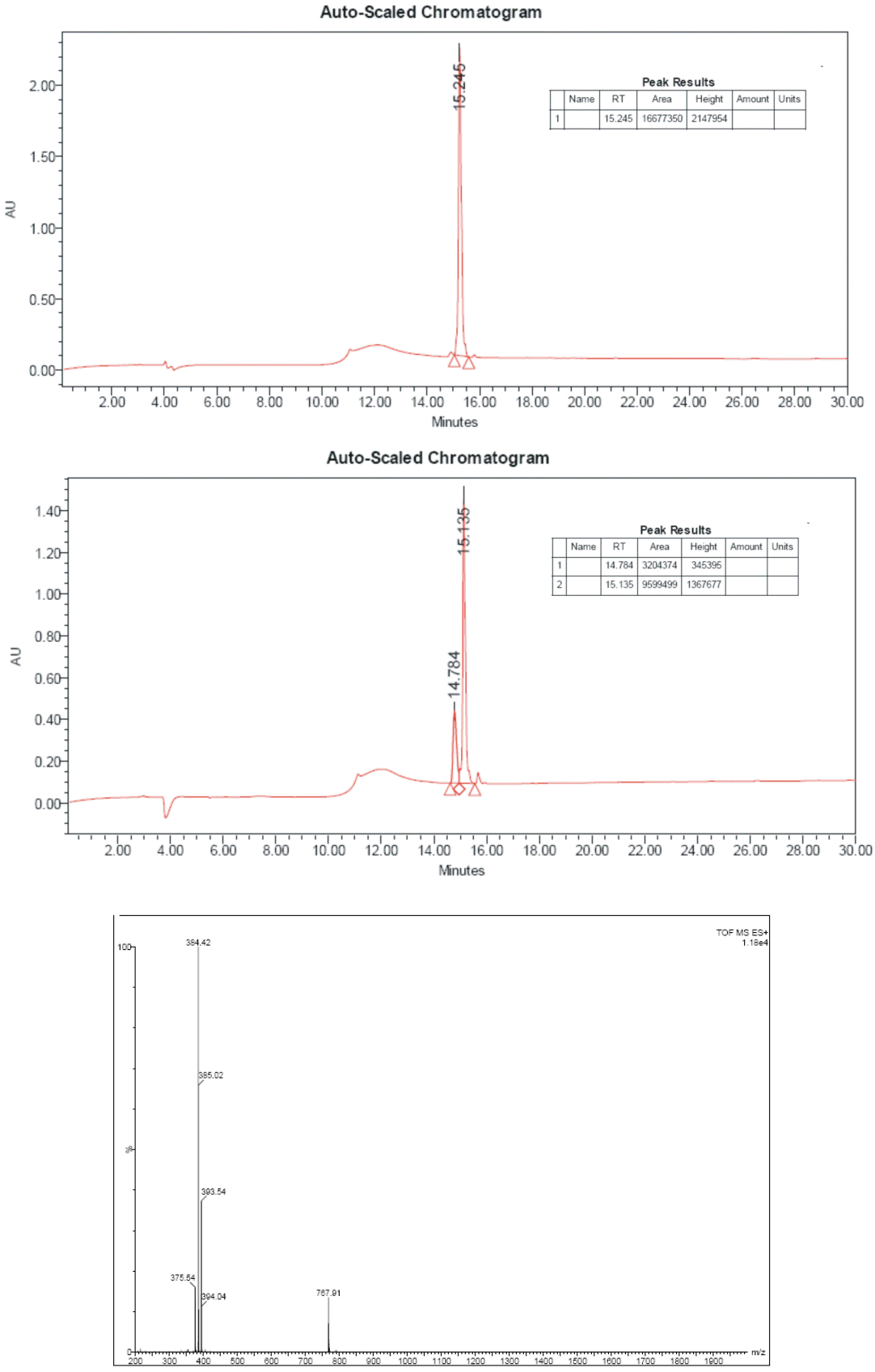


Figure S7. Chromatograms of Ac-RLLLAR-H (**31**) at λ 214 nm after purification by rpHPLC (top), lyophilized sample (middle) and mass spectrum (bottom).

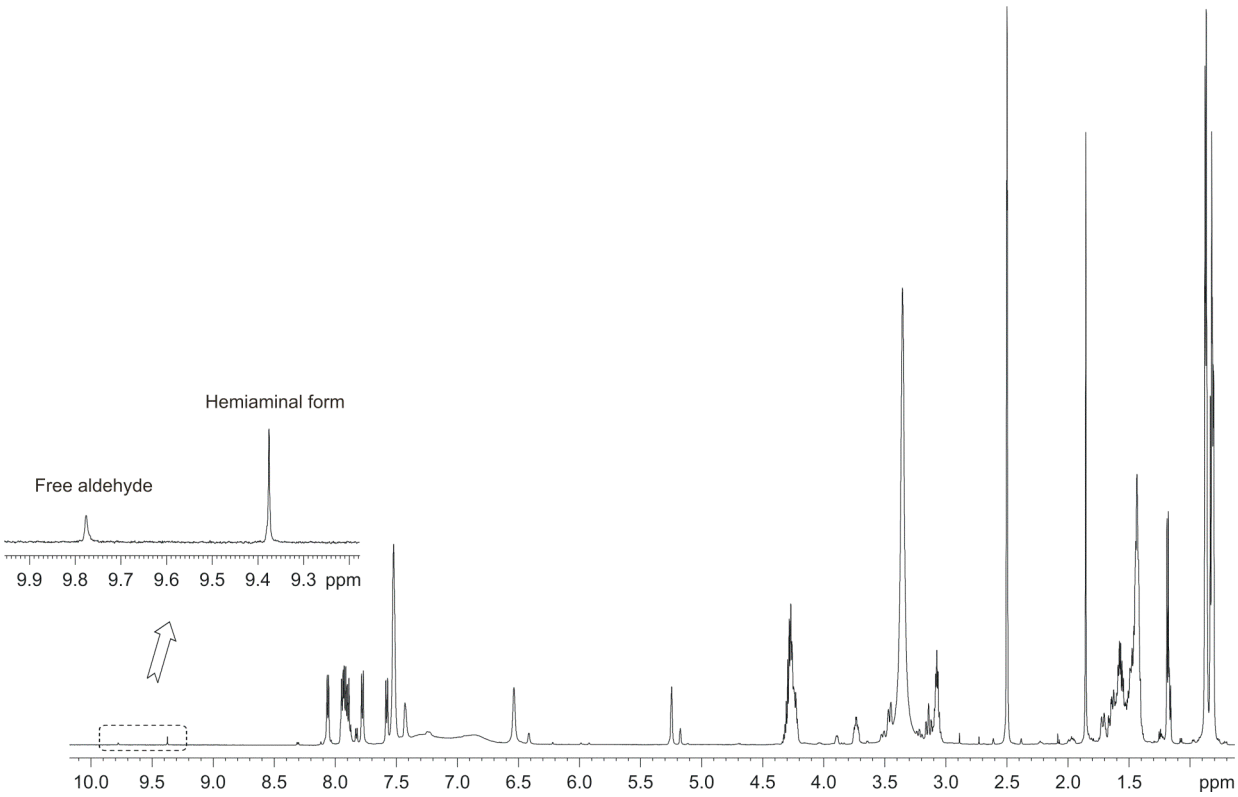
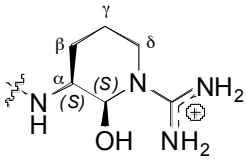


Figure S8. ^{1}H NMR (600.13 MHz) measured in DMSO-d_6 showing equilibria forms of **31** (Ac-RLLLAR-H).

Table S1. [1]H NMR (600.13 MHz) resonance assignments derived through analysis of 2D NMR spectra and chemical shifts (δ (ppm)) for **31** as carbinol-amine structure (major diasteromer) measured in DMSO-d_6 at 298 K.

Residue	αNH	Hα	Hβ	Others
	7.58 (8.4)*	3.73	1.54, 1.65	Hγ 1.50, 1.72, Hδ 3.14, 3.45, OH 6.54, CH-OH 5.25, NHε 7.52
Ala (2)	7.90 (7.7)*	4.30 (ov)**	Me 1.18 (7.0)***	--
Leu (3)	7.78 (8.2)*	4.27 (ov)**	1.43, 1.58 (ov)**	Hγ 1.42 (ov),** Me 0.82 (6.7)*** Me 0.87 (6.7)***
Leu (4)	7.94 (8.2)*	4.27 (ov)**	1.44, 1.57 (ov)**	Hγ 1.44 (ov),** Me 0.81 (6.7)*** Me 0.87 (6.7)***
Leu (5)	7.92 (8.0)*	4.27 (ov)**	1.43, 1.56 (ov)**	Hγ 1.43 (ov),** Me 0.83 (6.7)*** Me 0.87 (6.7)***
Arg (6)	8.06 (7.8)*	4.23 (ov)**	1.48, 1.63 (ov)**	Hγ 1.47 (ov)**, Hδ 3.08, NHε 7.52
Ac (7)	--	--	--	Me 1.85

* $^3J_{NHCH\alpha}$ (Hz); **ov = overlapped; *** $^3J_{HH}$ (Hz).

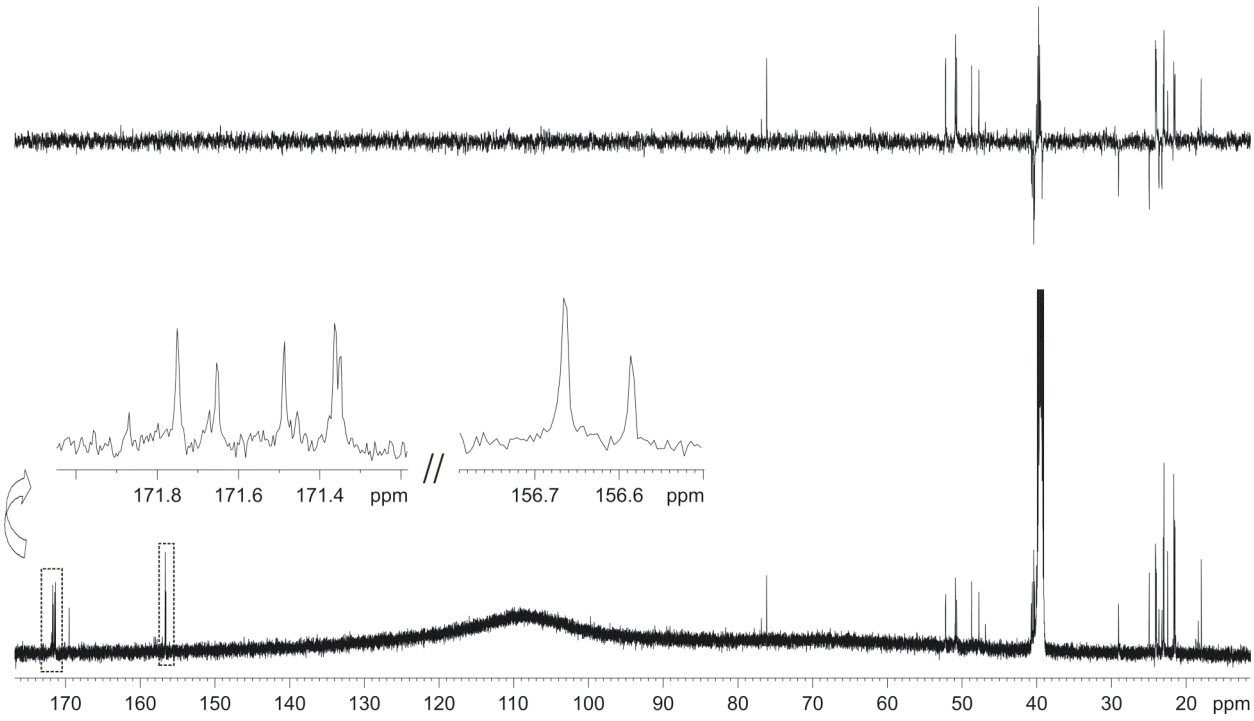
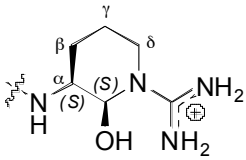


Figure S9. $^{13}C\{^{1}H\}$ (150.90 MHz) (bottom) and DEPT-135 (top) NMR spectra of **31** (Ac-RLLLAR-H) measured in DMSO-d_6.

Table S2. $^{13}C\{^{1}H\}$ NMR (150.90 MHz) resonance assignments derived through analysis of 2D NMR spectra and chemical shifts (δ (ppm)) for **31** as carbinol-amine structure (major diasteromer) measured in DMSO-d_6 at 298 K.

Residue	C=O	CHα	CH_2β	Others
	--	48.74	23.66	CH_2γ 23.27, CH_2δ 39.30, <u>CH</u>-OH 76.47, H_2N-C=NH 156.58
Ala (2)	171.49	47.76	Me 18.01	--
Leu (3), Leu (4), Leu (5)	171.36, 171.65, 171.75	50.74, 50.89, 50.92	40.32, 40.42, 40.74	3xCHγ 24.00, 24.04, 24.10 4xMe 21.52, 21.55, 21.67, 23.07, 2xMe 23.00
Arg (6)	171.35	52.21	29.06	CH_2γ 24.96, CH_2δ 40.62, H_2N-C=NH 156.66
Ac (7)	169.51	--	--	Me 22.49

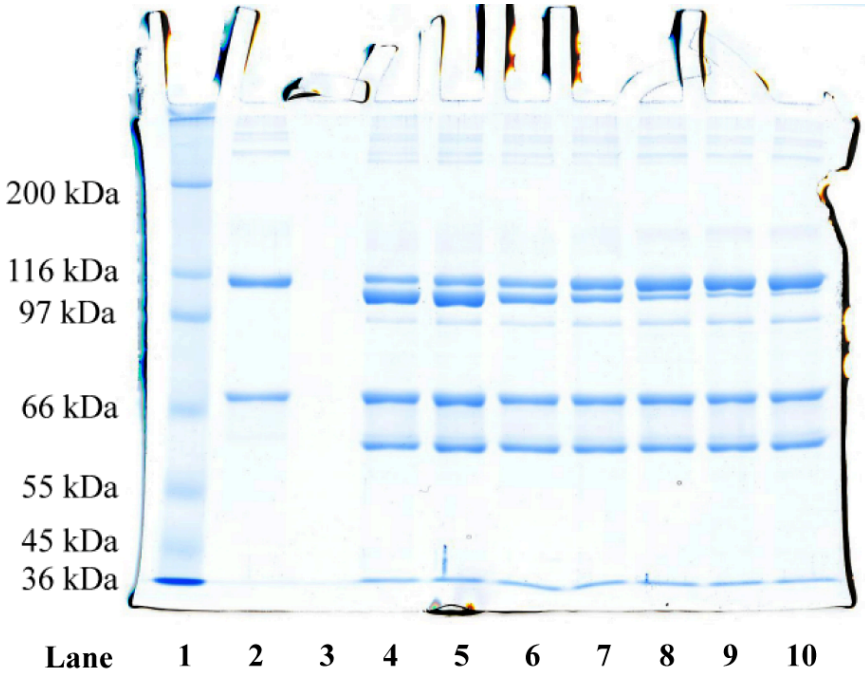


Figure S10. Ac-RLLLAR-H **31** inhibits cleavage of C3 by the AP C3 convertase in a concentration-dependent manner (7% gel).

C3 was added to C3 convertase and incubated for 30 min at 37°C. *Lane 1*, molecular marker. *Lane 2*, C3 with α-chain (112kDa) and β-chain (68kDa). *Lane 4-10*, (0, 0.01, 0.05, 0.125. 0.25, 0.5 and 1.0 mM) show dose-dependent inhibition of the cleavage of C3 into C3a and C3b (α'-chain (106kDa) and β-chain).

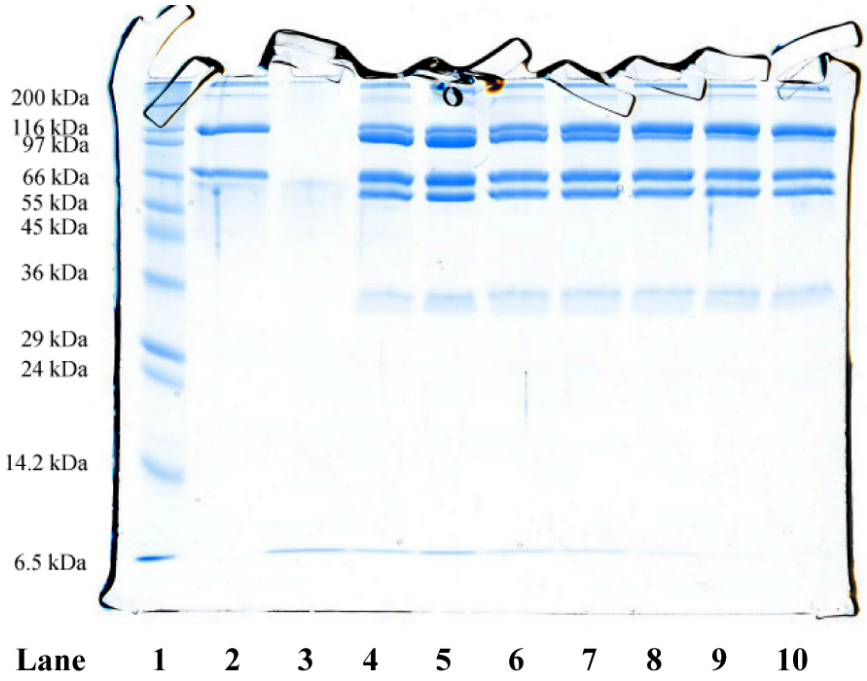


Figure S11. Ac-RLLLAR-H **31** inhibits cleavage of C3 by the AP C3 convertase in a concentration-dependent manner (12% gel).

C3 was added to C3 convertase and incubated for 30 min at 37°C. *Lane 1*, molecular marker. *Lane 2*, C3 with α-chain (112kDa) and β-chain (68kDa). *Lane 3*, C3a (6kDa). *Lane 4-10*, (0, 0.01, 0.05, 0.125. 0.25, 0.5 and 1.0 mM) show dose-dependent inhibition of the cleavage of C3 into C3a and C3b (α'-chain (106kDa) and β-chain).

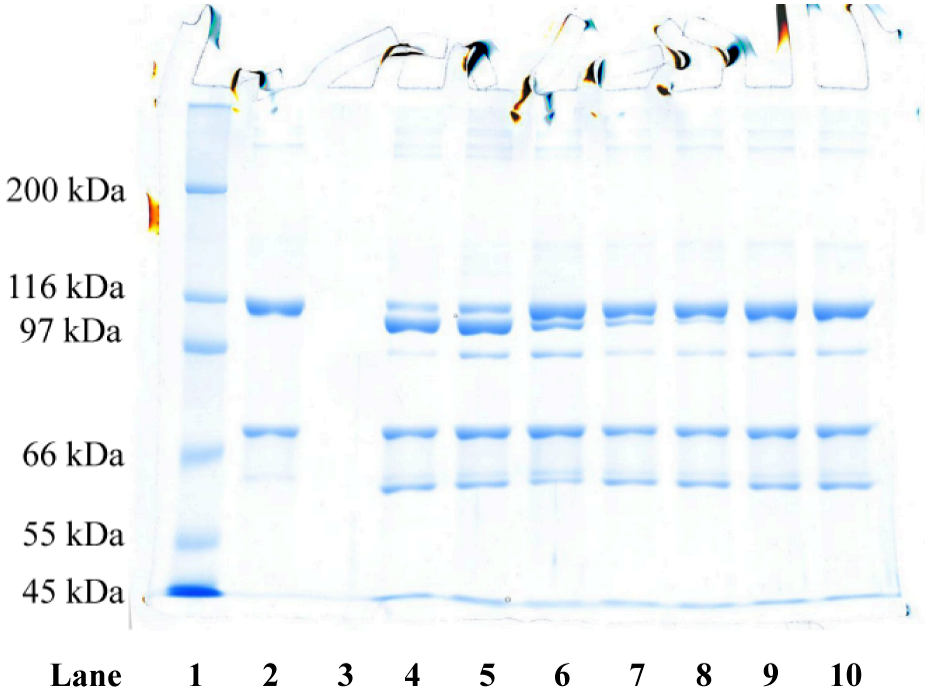


Figure S12. Ac-RLTbaLAR-H **51** inhibits cleavage of C3 by the AP C3 convertase in a concentration-dependent manner (7% gel).

C3 was added to C3 convertase and incubated for 30 min at 37°C. *Lane 1*, molecular marker. *Lane 2*, C3 with α-chain (112kDa) and β-chain (68kDa). *Lane 4-10*, (0, 0.01, 0.05, 0.125. 0.25, 0.5 and 1.0 mM) show dose-dependent inhibition of the cleavage of C3 into C3a and C3b (α'-chain (106kDa) and β-chain).

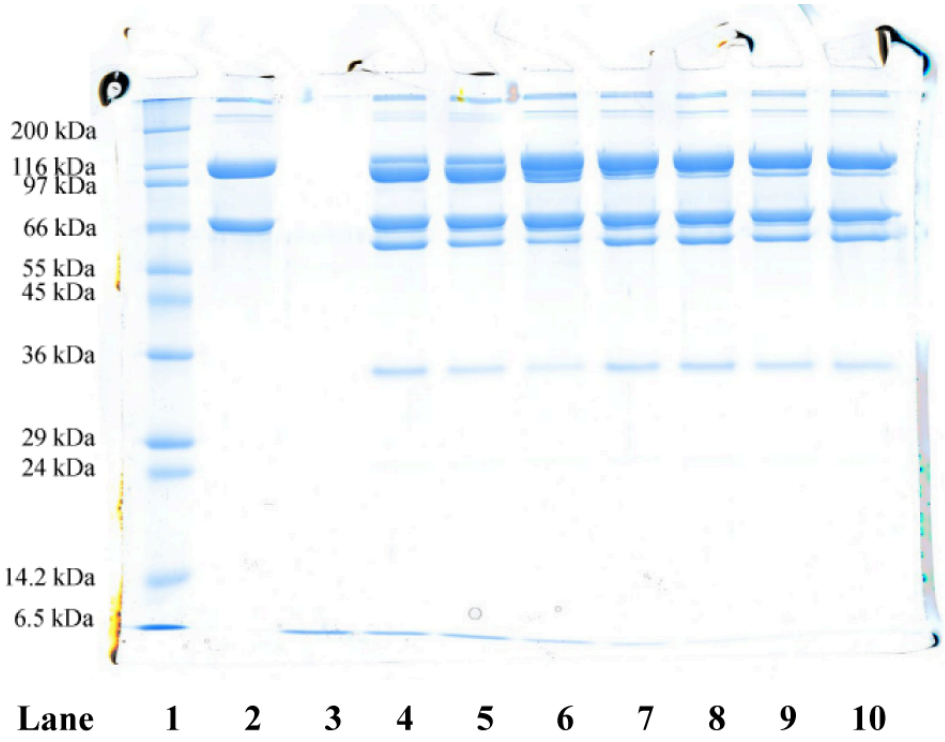


Figure S13. Ac-RLTbaLAR-H **51** inhibits cleavage of C3 by the AP C3 convertase in a concentration-dependent manner (12% gel).

C3 was added to C3 convertase and incubated for 30 min at 37°C. *Lane 1*, molecular marker. *Lane 2*, C3 with α-chain (112kDa) and β-chain (68kDa). *Lane 3*, C3a (6kDa). *Lane 4-10*, (0, 0.01, 0.05, 0.125. 0.25, 0.5 and 1.0 mM) show dose-dependent inhibition of the cleavage of C3 into C3a and C3b (α'-chain (106kDa) and β-chain).

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