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Supporting Information

Synthetic and Biological Studies on New Urea and Triazole Containing Cystobactamid Derivatives

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1. General information

Unless stated otherwise, all reactions conducted in organic solvents were performed in flame-dried glassware under an atmosphere of argon. Dry THF, DMF and CH_2Cl_2 were obtained by passing these previously degassed solvents through activated columns on a solvent purification system. Purchased reagents and chemicals were used as received, unless stated otherwise. Reactions were monitored by thin layer chromatography (TLC) on aluminum plates coated with silica gel, type 60 F254 by Merck and visualized by UV irradiation or development with a potassium permanganate or ninhydrine stain. Volatile solvents were removed under reduced pressure with a rotary evaporator. All column chromatographic purifications were performed using Machery-Nagel Silica 60 M (40 - 63 μm). Flash column chromatography was conducted with the flash purification system Sepacore[®] by Büchi using prepacked cartridges (puriFlash[®] by Interchim or chromabond[®] by Machery-Nagel). Preparative high performance liquid chromatography using a Merck Hitachi LaChrom system (pump L- 7150, interface D-7000, diode array detector L-7450 ($\lambda = 220\text{-}400\text{ nm}$, preferred monitoring at $\lambda = 230\text{ nm}$)) with column (abbreviation referred to in the experimental part given in parentheses): Trentec Reprisil-Pur 120 C18 AQ 5 μm , 250 \times 8 mm, with guard column, 40 \times 8 mm (C18-SP) and a Thermo Scientific Dionex (Ultimate 300 HPLC system) 2 with a Kintex 5u Biphenyl 100A 250 \times 10.0 mm column. ^1H -NMR and ^{13}C -NMR spectra were recorded with Bruker AVS or DRX spectrometers operating at 400, 500 or 600 MHz for ^1H (100, 125 or 150 MHz for ^{13}C) in $\text{DMSO-}d_6$. Chemical shifts are reported relative to the residual solvent signal (^1H -NMR: $\delta = 2.50$ ($\text{DMSO-}d_6$); ^{13}C -NMR: $\delta = 39.5$ ($\text{DMSO-}d_6$)). NMR data are reported as follows: chemical shift (δ) (multiplicity, coupling constants (J) where applicable, number of hydrogen atoms, assigned hydrogen). Splittings for ^1H -NMR signals are reported with the following symbols: bs = broad singlet, s = singlet, d = doublet, t = triplet, q = quartet, qi = quintet, h = heptet, dd = doublet of doublets, dt = doublet of triplets, dq = doublets of quartets, ddt = doublet of doublets of triplets, m = multiplet. For ^{13}C -NMR data the degree of substitution is reported as: p = primary C-atom, s = secondary C-atom, t = tertiary C-atom and q = quaternary C-atom. If necessary, COSY, HMBC and HSQC experiments were conducted for full characterization. High resolution mass spectra (HRMS) were obtained at 70 eV with a type VG Autospec spectrometer (Micromass), with a type LCT (ESI) (Micromass), with a type Q-TOF (Micromass) spectrometer in combination with a Waters Aquity Ultraperformance LC (UPLC) system, with a UPLC/Q-TOF-MS combination (Dionex Ultimate 3000/BrukerMaxis HD) or as gas chromatography with a HP6890. Optical rotations $[\alpha]_D^T$ were measured on Polarimeter 241 MC and 341 (both Perkin Elmer) at a wavelength of 589 nm (sodium

D line) and the concentration c is given in 10 mg mL^{-1} and the temperature in $^{\circ}\text{C}$. Melting points were measured with OptiMelt (Stanford Research Systems). Melting points were measured using a SRS OptiMelt apparatus. 4-isocyanato-benzonitrile (**6**), 4-aminobenzoic acid (**7**), 1-isocyanato-4-nitrobenzene (**10**), 4-ethynylaniline (**29**), *tert*-butyl 4-amino-benzoate (**32**), 4-fluorobenzoyl chloride (**33**), 5-cyanopicolinic acid (**34**), 4-cyano-3-fluorobenzoic acid (**35**), isonicotinic acid (**36**), 6-cyanonicotinic acid (**37**) and 3-(4-cyanophenyl)propanoic acid (**38**) are commercially available.

2. General procedures

General procedure I for amide formation (according to Scheme 1, main text)

DIPEA (4.0 eq) was added to a stirred solution of acid (2.0 eq), amine (1.0 eq) and COMU (2.0 eq) in DMF (0.15 M) at 0°C . The mixture was stirred at rt for 15 h. The reaction was terminated by diluting with EtOAc, washed with sat. NaHCO_3 solution (4x), brine, dried over Na_2SO_4 , filtered and concentrated under reduced pressure.

General procedure II for amide formation (according to Scheme 1, main text)

DIPEA (12.7 eq) was added dropwise to a stirred solution of acid (2.5 eq) and HATU (2.5 eq) in DMF (0.11 M) at rt and stirring was continued at rt for five minutes. The mixture was transferred dropwise to a stirred solution of amine (1.0 eq) in DMF (0.07 M) at rt and the mixture was stirred at rt for 15 h. The reaction was concentrated under reduced pressure.

General procedure III for amide formation (according to Scheme 1, main text)

Precooled chloroform (0.33 M) was added to amine (1.0 eq) and acid (1.7 eq). A solution of EEDQ (1.6 eq) in precooled chloroform (0.75 M) was added dropwise to the acid-amine-mixture at 0°C . After the mixture was warmed up to rt stirring was continued at rt for 16 h, it was dry loaded onto silica and purified by column chromatography (PE/EtOAc = 2:1 \rightarrow 1:4).

General procedure IV for Boc deprotection (according to Scheme 1, main text)

Ester (1.0 eq) was added in small portions to 4 N HCl in 1,4-dioxane (100 eq) at 0°C over five minutes, then the mixture was warmed up to rt over a period of 15 min. The mixture was slowly transferred to a mixture of EtOAc and a 80 % sat. aq. NaHCO_3 solution (400 mL, 1:1), the layers were separated, the aq. layer was extracted with EtOAc (3x 100 mL), the combined organic phases were washed with brine (150 mL), dried over Na_2SO_4 , filtered and concentrated *in vacuo*.

General procedure V for *tert*-Bu ester hydrolysis (according to Scheme 1, main text)

Precooled TFA (0.02 M) was added slowly to ester (1.0 eq) at 0 °C. The mixture was warmed up to rt over a period 30 min, then it was stirred between 30 min and 6 h. The reaction was terminated by addition of Et₂O. The precipitate was filtered, washed with an excess of Et₂O and dried under high vacuum.

General procedure VI for *de-O*-allylation (according to Scheme 1, main text)

Pd(PPh₃)₄ (0.25 eq) was added in one portion to a stirred mixture of allyl ether (1.0 eq) and aniline (2.0 eq) in THF (0.04 M) and stirring was continued at rt for 2.5 h. The mixture was terminated by addition of HCl. The reaction was concentrated under reduced pressure.

3. Chemical Syntheses

4-(3-(4-Cyanophenyl)ureido)-benzoic acid (8): DIPEA (3.50 mL, 20.8 mmol, 3.0 eq) was added to a solution of 4-aminobenzoic acid (**7**, 952 mg, 6.94 mmol, 1.0 eq) and 4-cyanophenyl isocyanate (**6**, 1.00 g, 6.94 mmol, 1.0 eq) in THF (30 mL). The reaction was stirred at 55 °C for 16 h. The precipitate was filtered and washed with Et₂O (200 mL). Column chromatography (CH₂Cl₂/MeOH, 5-10% MeOH) yielded the title compound **8** (1.87 g, 6.66 mmol, 96%) as colourless solid. T_M = 290 °C (decomposition); ¹H-NMR (400 MHz, DMSO-d₆): δ = 12.7 (1H, br. s, CO₂H), 9.31 (1H, s, H-6/H-8), 9.23 (1H, s, H-6/H-8), 7.88 (2H, m, H-3, H-3'), 7.74 (2H, m, H-10, H-10'), 7.64 (2H, m, H-11, H-11'), 7.57 (2H, m, H-4, H-4') ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 167.0 (q, C-1), 151.9 (q, C-7), 143.9 (q, C-9), 143.4 (q, C-5), 133.3 (2C, t, C-11, C-11'), 130.5 (2C, t, C-3, C-3'), 124.2 (q, C-2), 119.2 (q, CN), 118.2 (2C, t, C-10, C-10'), 117.6 (2C, t, C-4, C-4'), 103.6 (q, C-12) ppm; HRMS (ESI): *m/z* calc. for C₁₅H₁₀N₃O₃ [M – H]⁻: 280.0722; found 280.0723.

***tert*-Butyl-4-(2-(allyloxy)-3-isopropoxy-4-(3-(4-nitrophenyl)ureido)-benz-amido)benzoate (S1):** DIPEA (36 μL, 211 μmol, 2.0 eq) was added to a solution of amine **9** (45 mg, 106 μmol, 1.0 eq) and 4-nitrophenyl isocyanate (**10**, 52 mg, 317 μmol, 3.0 eq) in THF (2 mL). The reaction mixture was stirred at 55 °C for 6 h. Additional 4-nitrophenyl isocyanate (**9**, 52 mg, 317 μmol, 3.0 eq) was added and the reaction was stirred at 55 °C for another 14 h. The reaction mixture was concentrated *in vacuo* and the residue was purified by preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 80 min; t_r = 53 min) which provided compound **S1** as a colourless solid (44.7 mg, 76.4 μmol, 72%). T_M = 202 °C; ¹H-NMR (400 MHz, DMSO-d₆): δ = 10.4 (1H, s, H-8), 10.3 (1H, s, H-23), 8.55 (1H, s, H-21), 8.22 (2H, m, H-26, H-26'), 8.09 (1H, d, *J* = 8.7 Hz, H-11), 7.88 (2H, m, H-5, H-5'), 7.81 (2H, m, H-6, H-6'), 7.73 (2H, m, H-25, H-25'), 7.42 (1H, d, *J* = 8.7 Hz, H-12), 6.08 – 5.98 (1H, m, H-19), 5.40 (1H, dq, *J* = 1.6, 17.2 Hz, H-20_{trans}), 5.22 (1H, dq, *J* = 1.4, 10.4 Hz, H-20_{cis}), 4.66 – 4.59 (3H, m, H-16, H-18), 1.54 (9H, s, H-1), 1.33 (6H, d, *J* = 6.2 Hz, H-17) ppm; ¹³C-NMR (100 MHz, DMSO-d₆):

δ = 164.6 (q, C-3), 164.3 (q, C-9), 151.6 (q, C-22), 149.3 (q, C-15), 146.0 (q, C-27), 143.0 (q, C-7), 141.3 (q, C-24), 138.9 (q, C-13), 136.8 (q, C-10), 133.6 (t, C-19), 130.1 (2C, t, C-5, C-5'), 126.0 (q, C-4), 125.3 (2C, t, C-26, C-26'), 124.4 (t, C-12), 124.1 (q, C-14), 118.8 (2C, t, C-6, C-6'), 117.9 (s, C-20), 117.6 (2C, t, C-25, C-25'), 114.0 (t, C-11), 80.3 (q, C-2), 76.2 (t, C-16), 74.2 (s, C-18), 27.9 (3C, p, C-1), 22.0 (2C, p, C-17) ppm; HRMS (ESI): m/z calc. for $C_{31}H_{34}N_4O_8Na$ $[M + Na]^+$: 613.2274; found 613.2278.

***tert*-Butyl-4-(2-(allyloxy)-4-(3-(4-aminophenyl)ureido)-3-isopropoxy-benzamido)benzoate (11):**

Zinc (78.5 mg, 1.20 mmol, 2.0 eq) was added in one portion at rt to a stirred solution of nitro compound **S1** (352 mg, 0.60 mmol, 1.0 eq) in THF (1 mL), EtOH (1 mL) and glacial acetic acid (0.2 mL). After stirring vigorously at rt for 30 min, a 3rd and 4th equivalent of zinc were added and the mixture was stirred at rt for another 30 min. This step was repeated twice, after which time the reaction mixture was heated at 70 °C for a period of 30 min and the 9th and 10th equivalent of zinc were added and the mixture was stirred at 70 °C for additional 30 min. The reaction mixture was cooled to rt, diluted with Et₂O and terminated by addition of a sat. aq. NaHCO₃ solution. The precipitate was filtered and washed with an excess of Et₂O, the layers were separated, the aq. layer was extracted with Et₂O (3x), washed with brine, dried over Na₂SO₄, filtered and concentrated *in vacuo*. Column chromatography (PE/EtOAc= 3:1) yielded the title compound **11** (234 mg, 0.42 mmol, 70%) as a yellow solid. T_M = 134 °C; ¹H-NMR (400 MHz, DMSO-d₆): δ = 10.4 (1H, s, H-8), 9.05 (1H, s, H-21), 8.10 (1H, s, H-23), 8.08 (1H, s, H-11), 7.88 (2H, m, H-5, H-5'), 7.80 (2H, m, H-6, H-6'), 7.39 (1H, d, J = 8.8 Hz, H-12), 7.10 (2H, m, H-25, H-25'), 6.53 (2H, m, H-26, H-26'), 6.07 – 5.98 (1H, m, H-19), 5.40 (1H, dq, J = 1.6, 17.2 Hz, H-20_{trans}), 5.22 (1H, dq, J = 1.4, 9.3 Hz, H-20_{cis}), 4.83 (2H, br. S, NH₂), 4.62 – 4.57 (3H, m, H-16, H-18), 1.54 (9H, s, H-1), 1.29 (6H, d, J = 6.1 Hz, H-17) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 174.7 (q, C-3), 164.6 (q, C-9), 164.3 (q, C-22), 152.5 (q, C-13), 149.3 (q, C-15), 144.3 (q, C-27), 143.1 (q, C-7), 138.5 (q, C-10), 138.2 (q, C-14), 133.6 (t, C-19), 130.1 (2C, t, C-5, C-5'), 128.4 (q, C-24) 125.9 (q, C-4), 124.4 (t, C-12), 122.2 (2C, t, C-25, C-25'), 118.8 (2C, t, C-6, C-6'), 117.9 (s, C-20), 114.2 (2C, t, C-26, C-26'), 113.6 (t, C-11), 80.3 (q, C-2), 75.7 (t, C-16), 74.0 (s, C-18), 27.9 (3C, p, C-1), 21.9 (2C, p, C-17) ppm; HRMS (ESI): m/z calc. for $C_{31}H_{37}N_4O_6$ $[M + H]^+$: 561.2713; found 561.2705.

***tert*-Butyl-4-(2-(allyloxy)-3-isopropoxy-4-(4-nitrobenzamido)-benzamido)-benzoate (S2):** 4-

Nitrobenzoyl chloride (3.48 g, 18.7 mmol, 1.6 eq) was added in small portions to a solution of amine **9** (5.00 g, 11.7 mmol, 1.0 eq) and pyridine (3.78 mL, 46.8 mmol, 4.0 eq) in CH₂Cl₂ (80 mL). The reaction was terminated after stirring 1.5 h at rt by addition of an aq. NaHSO₄ solution (1 M). The layers were separated and the aq. layer was extracted with CH₂Cl₂ (3x). The combined organic phases were dried

over Na₂SO₄, filtered and concentrated *in vacuo* to yield crude nitro compound **S2** (6.66 g, 11.6 mmol, 99%) as a brown oil which was used without further purification in the next step.

tert-Butyl-4-(2-(allyloxy)-4-(4-aminobenzamido)-3-isopropoxybenzamido)-benzoate (12): Zinc (757 mg, 11.6 mmol, 2.0 eq) was added in one portion at rt to a stirred solution of nitro compound **S2** (3.33 g, 5.79 mmol, 1.0 eq) in THF (9.7 mL), EtOH (9.7 mL) and glacial acetic acid (2.0 mL). After stirring vigorously at rt for 30 min, a 3rd and 4th equivalent of zinc were added and the mixture was stirred at rt for another 30 min. This step was repeated twice, after which time the reaction was heated to 70 °C for a period of 30 min and the 9th and 10th equivalent of zinc were added. The mixture was stirred at 70 °C for additional 30 min. The reaction mixture was cooled to rt, diluted with Et₂O and terminated by addition of a sat. aq. NaHCO₃ solution. The precipitate was filtered and washed with an excess of Et₂O, the layers were separated, the aq. layer was extracted with Et₂O (3x), washed with brine, dried over Na₂SO₄, filtered and concentrated *in vacuo*. Column chromatography (PE/EtOAc= 3:1) yielded the title compound **12** (2.59 g, 4.75 mmol, 82% over two steps) as a yellow solid. T_M = 90 °C; ¹H-NMR (400 MHz, CDCl₃): δ = 10.2 (1H, s, H-8), 8.65 (1H, s, H-21), 8.49 (1H, d, *J* = 8.9 Hz, H-11), 8.05 (1H, d, *J* = 8.9 Hz, H-12), 7.98 (2H, m, H-5, H-5'), 7.74 (2H, m, H-24, H-24'), 7.73 (2H, m, H-6, H-6'), 6.73 (2H, m, H-25, H-25'), 6.19 – 6.09 (1H, m, H-19), 5.49 (1H, dq, *J* = 1.4, 17.1 Hz, H-20_{trans}), 5.40 (1H, dq, *J* = 1.1, 10.4 Hz, H-20_{cis}), 4.73 (1H, hept, *J* = 6.2 Hz, H-16), 4.69 (2H, dt, *J* = 1.2, 5.9 Hz, H-18), 4.11 (2H, br. s, NH₂), 1.60 (9H, s, H-1), 1.38 (6H, d, *J* = 6.2 Hz, H-17) ppm; ¹³C-NMR (100 MHz, CDCl₃): δ = 165.6 (q, C-3), 164.8 (q, C-22), 162.9 (q, C-9), 150.5 (q, C-26), 149.4 (q, C-15), 142.4 (q, C-7), 138.9 (q, C-14), 138.2 (q, C-4), 132.4 (t, C-19), 130.8 (2C, t, C-5, C-5'), 129.1 (2C, t, C-24, C-24'), 127.6 (q, C-13), 127.3 (t, C-12), 123.8 (q, C-23), 121.1 (q, C-10), 120.1 (s, C-20), 119.1 (2C, t, C-6, C-6'), 115.7 (t, C-11), 114.5 (2C, t, C-25, C-25'), 80.9 (q, C-2), 76.7 (t, C-16), 75.0 (s, C-18), 28.4 (3C, p, C-1), 23.0 (2C, p, C-17) ppm; HRMS (ESI): *m/z* calc. for C₃₁H₃₆N₃O₆ [M + H]⁺: 546.2604; found 546.2600.

tert-Butyl-4-(2-(allyloxy)-4-(4-((2*S*,3*R*)-4-amino-2-((*tert*-butoxycarbonyl)-amino)-3-methoxy-4-oxobutanamido)benzamido)-3-isopropoxybenz-amido)benzoate (S3): Following to the general procedure III using amine **12** (1.50 g, 2.75 mmol, 1.0 eq) and acid **13** (1.23 g, 4.68 mmol, 1.7 eq) compound **S3** (1.37 g, 1.73 mmol, 63%) was obtained as a yellow amorphous solid. [α]_D²² = -0.9° (*c* 1.3, MeOH); ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 10.5 (1H, s, NH), 10.4 (1H, s, NH), 9.51 (1H, s, NH), 7.98 (2H, m, ArH), 7.90 (2H, m, ArH), 7.84 – 7.80 (5H, m, ArH), 7.45 – 7.40 (3H, m, ArH, NH₂), 6.80 (1H, d, *J* = 8.4 Hz, NHBoc), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.37 (1H, dd, *J* = 1.6, 17.1 Hz, CH_{allyl-trans}), 5.20 (1H, dd, *J* = 1.4, 9.8 Hz, CH_{allyl-cis}), 4.61 (2H, d, *J* = 5.4 Hz, OCH₂allyl), 4.50 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.41 (1H, t, *J* = 7.9 Hz, CHNH), 3.86 (1H, d, *J* = 7.4 Hz, CHOMe), 3.26 (3H, s,

OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.38 (9H, s, C(CH₃)₃), 1.26 (6H, d, *J* = 6.2 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 170.6 (q, CONH₂), 168.9 (q, CONH), 164.6 (q, CONH), 164.5 (q, CONH), 164.3 (q, CO₂tBu), 154.8 (q, CO₂tBu), 149.5 (q, C-Ar), 143.0 (q, C-Ar), 142.5 (q, C-Ar), 142.2 (q, C-Ar), 135.7 (q, C-Ar), 133.6 (t, CHallyl), 130.1 (2C, t, C-Ar), 128.4 (2C, t, C-Ar), 127.0 (q, C-Ar), 126.0 (q, C-Ar), 123.6 (t, C-Ar), 118.9 (t, C-Ar), 118.8 (4C, t, C-Ar), 117.8 (s, CH₂allyl), 80.3 (t, CHOMe), 80.1 (q, C(CH₃)₃), 78.7 (q, C(CH₃)₃), 76.3 (t, CH(CH₃)₂), 74.3 (s, OCH₂allyl), 57.6 (p, OCH₃), 56.6 (t, CHNH), 28.1 (3C, p, C(CH₃)₃), 27.8 (3C, p, C(CH₃)₃), 22.3 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₁H₅₁N₅O₁₁Na [M + Na]⁺: 812.3483; found 812.3480.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-((2*S*,3*R*)-2,4-diamino-3-methoxy-4-oxobutan-amido)-benzamido)-3-isopropoxybenzamido)benzoate (14):** Following the general procedure IV with **S3** (200 mg, 0.25 mmol, 1.0 eq) preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 80 : 20 → 0 : 100 in 80 min; *t_r* = 32 min) provided amine **14** as a yellow amorphous solid (83 mg, 0.12 mmol, 48%). [*α*]_D²³ = +3.8° (*c* 1.1, MeOH); ¹H-NMR (400 MHz, DMSO-d₆): δ = 10.5 (1H, s, *NH*), 9.53 (1H, s, *NH*), 7.98 (2H, m, *ArH*), 7.89 (2H, m, *ArH*), 7.84 – 7.80 (5H, m, *ArH*), 7.47 (2H, d, *J* = 70 Hz, NH₂), 7.41 (1H, d, *J* = 8.5 Hz, *ArH*), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, dd, *J* = 1.7, 17.1 Hz, CH_{allyl-trans}), 5.20 (1H, dd, *J* = 1.5, 9.8 Hz, CH_{allyl-cis}), 4.61 (2H, d, *J* = 5.5 Hz, OCH₂allyl), 4.50 (1H, hept, *J* = 6.1 Hz, CHMe₂), 3.86 (1H, d, *J* = 6.6 Hz, CHOMe), 3.79 (1H, d, *J* = 6.6 Hz, CHNH₂), 3.31 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.26 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 171.1 (q, CONH₂), 164.6 (q, CONH), 164.5 (q, CONH), 164.3 (q, CONH), 163.0 (q, CO₂tBu), 149.5 (q, C-Ar), 143.0 (q, C-Ar), 142.5 (q, C-Ar), 142.0 (q, C-Ar), 135.6 (q, C-Ar), 133.6 (t, CHallyl), 130.1 (2C, t, C-Ar), 128.5 (q, C-Ar), 128.4 (2C, t, C-Ar), 127.1 (q, C-Ar), 126.0 (q, C-Ar), 123.6 (t, C-Ar), 119.0 (t, C-Ar), 118.8 (2C, t, C-Ar), 118.8 (2C, t, C-Ar), 117.8 (s, CH₂allyl), 82.1 (t, CHOMe), 80.3 (q, C(CH₃)₃), 76.2 (t, CH(CH₃)₂), 74.3 (s, OCH₂allyl), 58.0 (p, OCH₃), 56.6 (t, CHNH₂), 27.9 (3C, p, C(CH₃)₃), 22.3 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₃₆H₄₃N₅O₉Na [M + Na]⁺: 712.2958; found 712.2960.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-((2*S*,3*R*)-4-amino-2-(4-(3-(4-cyanophenyl)-ureido)-benz-amido)-3-methoxy-4-oxobutanamido)benzamido)-3-iso-propoxybenzamido)benzoate (15):** Following the general procedure II acid **8** (41.8 mg, 149 μmol, 2.5 eq) and amine **14** (41.0 mg, 59.4 μmol, 1.0 eq) provided compound **15** as a colourless solid after preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 60 : 40 → 0 : 100 in 80 min; *t_r* = 67 min) (42.7 mg, 44.8 μmol, 75%). *T_M* = 226 °C (decomposition); [*α*]_D²² = +34.0° (*c* 4.2, MeOH); ¹H-NMR (400 MHz, DMSO-d₆): δ = 10.5 (1H, s, *NH*), 10.5 (1H, s, *NH*), 9.52 (1H, s, *NH*), 9.51 (1H, s, *NH*_{urea}), 9.38 (1H, s, *NH*_{urea}), 8.37 (1H, d, *J* = 8.1 Hz, *NHCH*), 7.98 (2H, m, *ArH*), 7.89 (2H, m, *ArH*), 7.84 – 7.82 (7H, m, *ArH*), 7.74 (2H, m, *ArH*), 7.66

(2H, m, ArH), 7.59 (2H, m, ArH), 7.51 (2H, d, $J = 27.1$ Hz, CONH₂), 7.41 (1H, d, $J = 8.5$ Hz, ArH), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, dq, $J = 1.6, 17.2$ Hz, CH_{allyl-trans}), 5.20 (1H, dq, $J = 1.3, 10.5$ Hz, CH_{allyl-cis}), 4.90 (1H, t, $J = 8.1$ Hz, CHNH), 4.61 (2H, d, $J = 5.4$ Hz, OCH₂allyl), 4.50 (1H, hept, $J = 6.1$ Hz, CHMe₂), 4.09 (1H, d, $J = 8.1$ Hz, CHOMe), 3.01 (3H, s, OCH₃), 1.54 (9H, s, C(CH₃)₃), 1.26 (6H, d, $J = 6.1$ Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): $\delta = 170.9$ (q, CONH₂), 168.8 (q, CONH), 165.5 (q, CONH), 164.6 (q, CONH), 164.5 (q, CO₂tBu), 164.3 (q, CONH), 152.0 (q, NHCONH), 149.5 (q, C-Ar), 144.0 (q, C-Ar), 143.0 (q, C-Ar), 142.5 (q, C-Ar), 142.5 (q, C-Ar), 142.2 (q, C-Ar), 135.7 (q, C-Ar), 133.6 (t, CH_{allyl}), 133.3 (2C, t, C-Ar), 130.1 (2C, t, C-Ar), 128.5 (2C, t, C-Ar), 128.5 (t, C-Ar), 128.4 (2C, t, C-Ar), 127.1 (q, C-Ar), 126.0 (q, C-Ar), 123.6 (t, C-Ar), 119.3 (q, CN), 118.9 (2C, t, C-Ar), 118.8 (2C, t, C-Ar), 118.2 (2C, t, C-Ar), 117.8 (s, CH₂allyl), 117.5 (2C, t, C-Ar), 103.5 (q, C-Ar), 80.3 (q, C(CH₃)₃), 80.0 (t, CHOMe), 76.3 (t, CH(CH₃)₂), 74.3 (s, OCH₂allyl), 57.7 (p, OCH₃), 55.7 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 22.3 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): m/z calc. for C₅₁H₅₂N₈O₁₁Na [M + Na]⁺: 975.3653; found 975.3633.

***tert*-Butyl-4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(3-(4-cyanophenyl)ureido)-benz-amido)-3-methoxy-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxy-benzamido)benzoate (S4):** Following to the general procedure VI compound **15** (42.0 mg, 44.1 μ mol, 1.0 eq) was used. Preparative HPLC (RP-18; run time 80 min; H₂O/MeCN = 70 : 30 \rightarrow 0 : 100 in 70 min; $t_r = 56$ min) provided Phenol **S4** as a colourless amorphous solid (29.8 mg, 32.6 μ mol, 74%). $[\alpha]_D^{21} = +29.3^\circ$ (c 1.2, MeOH); ¹H-NMR (400 MHz, DMSO-d₆): $\delta = 12.4$ (1H, br. s, OH), 10.8 (1H, br. s, NH), 10.6 (1H, s, NH), 9.40 (1H, s, NH), 9.38 (1H, s, NH_{urea}), 9.28 (1H, s, NH_{urea}), 8.38 (1H, d, $J = 8.1$ Hz, NHCH), 7.96 (2H, m, ArH), 7.92 (2H, m, ArH), 7.86 – 7.82 (7H, m, ArH), 7.74 (2H, m, ArH), 7.70 (1H, d, $J = 8.9$ Hz, ArH), 7.66 (2H, m, ArH), 7.59 (2H, m, ArH), 7.51 (2H, d, $J = 26.5$ Hz, CONH₂), 4.91 (1H, t, $J = 8.1$ Hz, CHNH), 4.56 (1H, hept, $J = 6.2$ Hz, CHMe₂), 4.09 (1H, d, $J = 8.1$ Hz, CHOMe), 3.31 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.27 (6H, d, $J = 6.2$ Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): $\delta = 170.9$ (q, CONH₂), 168.8 (q, CONH), 168.4 (q, CONH), 165.5 (q, CONH), 164.6 (q, CO₂tBu), 164.2 (q, CONH), 154.5 (q, C-Ar), 152.0 (q, NHCONH), 144.0 (q, C-Ar), 142.4 (q, C-Ar), 142.3 (q, C-Ar), 142.1 (q, C-Ar), 137.0 (q, C-Ar), 136.3 (q, C-Ar), 133.3 (2C, t, C-Ar), 129.9 (2C, t, C-Ar), 128.5 (2C, t, C-Ar), 128.3 (2C, t, C-Ar), 127.1 (q, C-Ar), 126.7 (q, C-Ar), 122.9 (t, C-Ar), 120.6 (2C, t, C-Ar), 119.3 (q, CN), 119.0 (2C, t, C-Ar), 118.2 (2C, t, C-Ar), 117.5 (2C, t, C-Ar), 112.5 (t, C-Ar), 111.8 (q, C-Ar), 103.5 (q, C-Ar), 80.5 (q, C(CH₃)₃), 80.0 (t, CHOMe), 74.7 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.8 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 22.3 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): m/z calc. for C₄₈H₄₈N₈O₁₁Na [M + Na]⁺: 935.3340; found 935.3342.

4-(4-(4-((2S,3R)-4-Amino-2-(4-(3-(4-cyanophenyl)ureido)benzamido)-3-methoxy-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenz-amido)benzoic acid (16): Following to the general procedure V phenol **S4** (29.8 mg, 32.6 μmol , 1.0 eq) was stirred for 5.5 h. Acid **16** was obtained as a colourless amorphous solid (22.5 mg, 26.3 μmol , 81%). $[\alpha]_D^{22} = +23.1^\circ$ (c 1.1, MeOH); $^1\text{H-NMR}$ (400 MHz, DMSO- d_6): $\delta = 12.3$ (1H, br. s, OH), 10.6 (1H, br. s, NH), 10.6 (1H, s, NH), 9.40 (1H, s, NH), 9.38 (1H, s, NH_{urea}), 9.26 (1H, s, NH_{urea}), 8.37 (1H, d, $J = 8.1$ Hz, NHCH), 7.98 – 7.95 (4H, m, ArH), 7.88 – 7.82 (7H, m, ArH), 7.76 – 7.70 (3H, m, ArH), 7.66 (2H, m, ArH), 7.58 (2H, m, ArH), 7.51 (2H, d, $J = 26.7$ Hz, CONH_2), 4.90 (1H, t, $J = 8.1$ Hz, CHNH), 4.55 (1H, hept, $J = 6.1$ Hz, CHMe₂), 4.09 (1H, d, $J = 8.1$ Hz, CHOMe), 3.31 (3H, s, OCH₃), 1.27 (6H, d, $J = 6.1$ Hz, CH(CH₃)₂) ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO- d_6): $\delta = 170.9$ (q, CONH_2), 168.8 (q, CONH), 168.5 (q, CONH), 166.9 (q, CO₂H), 165.5 (q, CONH), 164.2 (q, CONH), 154.1 (q, C-Ar), 151.9 (q, NHCONH), 144.0 (q, C-Ar), 142.4 (q, C-Ar), 142.3 (q, C-Ar), 142.0 (q, C-Ar), 137.0 (q, C-Ar), 136.3 (q, C-Ar), 133.3 (2C, t, C-Ar), 130.2 (2C, t, C-Ar), 128.5 (2C, t, C-Ar), 128.5 (q, C-Ar), 128.3 (2C, t, C-Ar), 127.1 (q, C-Ar), 126.3 (q, C-Ar), 122.8 (t, C-Ar), 120.7 (2C, t, C-Ar), 119.3 (q, CN), 119.0 (2C, t, C-Ar), 118.2 (2C, t, C-Ar), 117.5 (2C, t, C-Ar), 112.4 (t, C-Ar), 112.2 (q, C-Ar), 103.5 (q, C-Ar), 80.0 (t, CHOMe), 74.9 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.7 (t, CHNH), 22.3 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): m/z calc. for C₄₄H₄₁N₈O₁₁ [M + H]⁺: 857.2895; found 857.2896.

tert-Butyl-4-(2-(allyloxy)-4-(3-(4-((2S,3R)-4-amino-2-((tert-butoxycarbonyl)-amino)-3-methoxy-4-oxobutanamido)phenyl)ureido)-3-isopropoxybenz-amido)benzoate (17): Following the general procedure III using amine **11** (234 mg, 417 μmol , 1.0 eq) and acid **13** (186 mg, 710 μmol , 1.7 eq) compound **17** (229 mg, 284 μmol , 68%) was obtained as a yellow solid. $T_M = 168$ °C; $[\alpha]_D^{21} = -7.0^\circ$ (c 0.9, MeOH); $^1\text{H-NMR}$ (400 MHz, DMSO- d_6): $\delta = 10.4$ (1H, s, NH), 9.94 (1H, s, NH), 9.52 (1H, s, NH_{urea}), 8.30 (1H, s, NH_{urea}), 8.11 (1H, d, $J = 8.8$ Hz, ArH), 7.88 (2H, m, ArH), 7.81 (2H, m, ArH), 7.57 (2H, m, ArH), 7.42 – 7.38 (5H, m, ArH, NH₂), 6.70 (1H, d, $J = 8.3$ Hz, NHBoc), 6.05 – 5.98 (1H, m, CH_{allyl}), 5.40 (1H, dd, $J = 1.6, 17.2$ Hz, CH_{allyl-trans}), 5.22 (1H, dd, $J = 1.4, 9.3$ Hz, CH_{allyl-cis}), 4.64 – 4.58 (3H, m, OCH₂allyl, CHMe₂), 4.35 (1H, t, $J = 8.5$ Hz, CHNH), 3.83 (1H, d, $J = 7.4$ Hz, CHOMe), 3.25 (3H, s, OCH₃), 1.54 (9H, s, C(CH₃)₃), 1.38 (9H, s, C(CH₃)₃), 1.33 (6H, d, $J = 6.1$ Hz, CH(CH₃)₂) ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO- d_6): $\delta = 170.8$ (q, CONH_2), 167.8 (q, CONH), 164.6 (2C, q, CONH), 164.3 (q, CO₂tBu), 152.0 (q, NHCONH), 149.3 (q, C-Ar), 143.1 (q, C-Ar), 138.4 (q, C-Ar), 137.8 (q, C-Ar), 135.0 (q, C-Ar), 133.6 (t, CH_{allyl}), 130.1 (2C, t, C-Ar), 125.9 (q, C-Ar), 124.5 (t, C-Ar), 124.4 (q, C-Ar), 123.0 (q, C-Ar), 120.1 (2C, t, C-Ar), 118.8 (2C, t, C-Ar), 118.6 (2C, t, C-Ar), 117.9 (s, CH₂allyl), 113.7 (t, C-Ar), 80.3 (t, CHOMe), 78.6 (2C, q, C(CH₃)₃), 75.9 (t, CH(CH₃)₂), 74.1 (s, OCH₂allyl), 57.6 (p, OCH₃), 56.5 (t, CHNH), 28.1 (3C, p, C(CH₃)₃), 27.9 (3C, p, C(CH₃)₃), 21.9 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): m/z calc. for C₄₁H₅₃N₆O₁₁ [M + H]⁺: 805.3772; found 805.3772.

***tert*-Butyl-4-(2-(allyloxy)-4-(3-(4-((2*S*,3*R*)-2,4-diamino-3-methoxy-4-oxobutanamido)-**

phenyl)ureido)-3-isopropoxybenzamido)benzoate (18): Following to the general procedure IV compound **17** (178 mg, 0.22 mmol, 1.0 eq) was used. Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 80 min; t_r = 26 min) provided amine **18** as a yellow amorphous solid (76.2 mg, 0.11 mmol, 49%). [α]_D²¹ = +4.1° (c 1.1, MeOH); ¹H-NMR (400 MHz, DMSO-d₆): δ = 10.4 (1H, s, NH), 9.87 (1H, br. s, NH), 9.59 (1H, s, NH_{Urea}), 8.33 (1H, s, NH_{Urea}), 8.11 (1H, d, J = 8.8 Hz, ArH), 7.88 (2H, m, ArH), 7.81 (2H, m, ArH), 7.58 (2H, m, ArH), 7.43 – 7.41 (3H, m, ArH), 7.36 (2H, d, J = 80.3 Hz, CONH₂), 6.07 – 5.98 (1H, m, CH_{allyl}), 5.40 (1H, dd, J = 1.6, 17.2 Hz, CH_{allyl-trans}), 5.22 (1H, dd, J = 1.4, 9.3 Hz, CH_{allyl-cis}), 4.65 – 4.59 (3H, m, OCH₂allyl, CHMe₂), 3.76 (1H, d, J = 6.8 Hz, CHOMe), 3.59 (1H, d, J = 6.8 Hz, CHNH₂), 3.37 (2H, br. s, NH₂), 3.28 (3H, s, OCH₃), 1.54 (9H, s, C(CH₃)₃), 1.33 (6H, d, J = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 171.7 (q, CONH₂), 170.7 (q, CONH), 164.6 (q, CO₂tBu), 164.3 (q, CONH), 152.1 (q, NHCONH), 149.3 (q, C-Ar), 143.1 (q, C-Ar), 138.4 (q, C-Ar), 137.8 (q, C-Ar), 134.9 (q, C-Ar), 133.7 (q, C-Ar), 133.6 (t, CHallyl), 130.1 (2C, t, C-Ar), 125.9 (q, C-Ar), 124.5 (t, C-Ar), 122.9 (q, C-Ar), 119.9 (2C, t, C-Ar), 118.8 (2C, t, C-Ar), 118.7 (2C, t, C-Ar), 117.9 (s, CH₂allyl), 113.7 (t, C-Ar), 83.2 (t, CHOMe), 80.3 (q, C(CH₃)₃), 75.9 (t, CH(CH₃)₂), 74.1 (s, OCH₂allyl), 57.8 (p, OCH₃), 57.1 (t, CHNH₂), 27.9 (3C, p, C(CH₃)₃), 21.9 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₃₆H₄₅N₆O₉ [M + H]⁺: 705.3248; found 705.3242.

4-(2-(Allyloxy)-4-(3-(4-((2*S*,3*R*)-2,4-diamino-3-methoxy-4-oxobutanamido)-phenyl)-ureido)-3-

isopropoxybenzamido)benzoic acid (S5): Ester **17** (80 mg, 99.4 μmol, 1.0 eq) was added in small portions to 4 N HCl in 1,4-dioxane (2.48 mL, 9.94 mmol, 100 eq) and stirred for 30 min at rt. The mixture was slowly transferred to a mixture of EtOAc and a 80 % sat. aq. NaHCO₃ solution (400 mL, 1:1). The layers were separated, the aq. layer was extracted with EtOAc (3x 100 mL), the combined organic phases were washed with brine (150 mL), dried over Na₂SO₄, filtered and concentrated *in vacuo*. Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 95 : 05 → 0 : 100 in 90 min; t_r = 30 min) provided acid **S5** as a yellow amorphous solid (57.3 mg, 88.4 μmol, 89%). [α]_D²² = +7.0° (c 0.9, MeOH); ¹H-NMR (400 MHz, DMSO-d₆): δ = 10.4 (1H, s, NH), 9.87 (1H, br. s, NH), 9.56 (1H, s, NH_{Urea}), 8.31 (1H, s, NH_{Urea}), 8.11 (1H, d, J = 8.8 Hz, ArH), 7.92 (2H, m, ArH), 7.81 (2H, m, ArH), 7.58 (2H, m, ArH), 7.42 – 7.40 (3H, m, ArH), 7.37 (2H, d, J = 80.7 Hz, CONH₂), 6.08 – 5.99 (1H, m, CH_{allyl}), 5.40 (1H, dd, J = 1.7, 17.2 Hz, CH_{allyl-trans}), 5.23 (1H, dd, J = 1.4, 10.4 Hz, CH_{allyl-cis}), 4.64 – 4.59 (3H, m, OCH₂allyl, CHMe₂), 3.76 (1H, d, J = 6.8 Hz, CHOMe), 3.60 (1H, d, J = 6.8 Hz, CHNH₂), 3.27 (3H, s, OCH₃), 1.33 (6H, d, J = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 171.7 (q, CONH₂), 170.7 (q, CONH), 167.1 (q, CO₂H), 164.3 (q, CONH), 152.1 (q, NHCONH), 149.3 (q, C-Ar), 142.9 (q, C-Ar), 138.5 (q, C-Ar), 137.8 (q, C-Ar), 134.9 (q, C-Ar), 133.7 (q, C-Ar), 133.6 (t, CHallyl), 130.4 (2C, t, C-Ar), 125.8 (q, C-Ar), 124.5 (t, C-Ar), 123.1 (q, C-Ar), 119.9 (2C, t, C-Ar), 118.9 (2C, t,

C-Ar), 118.7 (2C, t, C-Ar), 117.9 (s, CH₂allyl), 113.7 (t, C-Ar), 83.2 (t, CHOMe), 76.0 (t, CH(CH₃)₂), 74.1 (s, OCH₂allyl), 57.8 (p, OCH₃), 57.1 (t, CHNH₂), 22.0 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₃₂H₃₇N₆O₉ [M + H]⁺: 649.2622; found 649.2624.

4-(4-(3-(4-((2*S*,3*R*)-2,4-diamino-3-methoxy-4-oxobutanamido)phenyl)-ureido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid (25): Following to the general procedure VI compound **S5** (10.0 mg, 15.4 μmol, 1.0 eq) provided phenol **25** as a colourless amorphous solid (6.5 mg, 10.7 μmol, 69%). Preparative HPLC (RP-18; run time 80 min; H₂O/MeCN = 95 : 05 → 0 : 100 in 60 min; *t_r* = 21 min). [*α*]_D²³ = +24.1° (*c* 0.7, MeOH); ¹H-NMR (500 MHz, DMSO-*d*₆): δ = 9.83 (1H, br. s, CO₂H), 9.55 (1H, s, NH), 8.34 (2H, br. s, NH_{Urea}), 8.09 (1H, s, NH), 7.87 (2H, m, ArH), 7.76 (2H, m, ArH), 7.57 – 7.54 (3H, m, ArH), 7.46 – 7.43 (2H, m, ArH, CONH₂), 7.40 (2H, m, ArH), 7.24 (1H, s, CONH₂), 4.79 (1H, hept, *J* = 6.5 Hz, CHMe₂), 3.74 (1H, d, *J* = 7.0 Hz, CHOMe), 3.57 (1H, d, *J* = 7.0 Hz, CHNH₂), 3.27 (3H, s, OCH₃), 1.25 (6H, d, *J* = 6.5 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-*d*₆): δ = 171.8 (q, CONH₂), 170.8 (q, CONH), 168.0 (q, CO₂H), 164.8 (q, CONH), 152.2 (q, NHCONH), 143.5 (q, C-Ar), 137.4 (q, C-Ar), 135.3 (q, C-Ar), 134.5 (q, C-Ar), 133.9 (q, C-Ar), 133.9 (q, C-Ar), 130.4 (q, C-Ar), 130.2 (2C, t, C-Ar), 123.4 (t, C-Ar), 119.8 (2C, t, C-Ar), 119.2 (2C, t, C-Ar), 118.5 (2C, t, C-Ar), 112.0 (q, C-Ar), 104.0 (t, C-Ar), 83.3 (t, CHOMe), 72.0 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 57.1 (t, CHNH₂), 22.1 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₂₉H₃₂N₆O₉Na [M + Na]⁺: 631.2128; found 631.2127.

tert-Butyl-4-(2-(allyloxy)-4-(3-(4-((2*S*,3*R*)-4-amino-3-methoxy-2-(4-(4-nitro-benzamido)-benzamido)-4-oxobutanamido)phenyl)ureido)-3-isopropoxy-benzamido)benzoate (21): Following the general procedure II acid **19** (31.0 mg, 108 μmol, 2.5 eq) and amine **18** (31.0 mg, 44.0 μmol, 1.0 eq) provided phenol **S7** as a grey amorphous solid (15.8 mg, 17.3 μmol, 61%). Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 80 min; *t_r* = 57 min) provided compound **21** as a colourless solid (25.2 mg, 25.9 μmol, 59%). *T_M* = 230 °C (decomposition); [*α*]_D²¹ = +46.1° (*c* 0.9, MeOH); ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 10.8 (1H, s, NH), 10.4 (1H, s, NH), 10.2 (1H, s, NH), 9.67 (1H, s, NH_{Urea}), 8.43 – 8.35 (4H, m, ArH, NH_{Urea}, NHCH), 8.22 (2H, m, ArH), 8.11 (1H, d, *J* = 8.7 Hz, ArH), 7.91 – 7.87 (6H, m, ArH), 7.81 (2H, m, ArH), 7.61 – 7.55 (3H, m, ArH, CONH₂), 7.44 – 7.40 (4H, m, ArH, CONH₂), 6.06 – 5.98 (1H, m, CH_{allyl}), 5.40 (1H, dd, *J* = 1.4, 17.3 Hz, CH_{allyl-trans}), 5.22 (1H, dd, *J* = 1.1, 9.2 Hz, CH_{allyl-cis}), 4.89 (1H, t, *J* = 8.1 Hz, CHNH), 4.63 – 4.59 (3H, m, OCH₂allyl, CHMe₂), 4.09 (1H, d, *J* = 7.9 Hz, CHOMe), 3.31 (3H, s, OCH₃), 1.54 (9H, s, C(CH₃)₃), 1.33 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-*d*₆): δ = 171.1 (q, CONH₂), 167.6 (q, CONH), 165.3 (q, CONH), 164.6 (q, CO₂*t*Bu), 164.3 (q, CONH), 164.2 (q, CONH), 152.1 (q, NHCONH), 149.3 (q, C-Ar), 143.1 (q, C-Ar), 141.7 (q, C-Ar), 140.7 (q, C-Ar), 138.4 (q, C-Ar), 137.9

(q, C-Ar), 135.1 (q, C-Ar), 133.6 (t, CHallyl), 130.1 (2C, t, C-Ar), 129.4 (2C, t, C-Ar), 129.1 (q, C-Ar), 128.3 (2C, t, C-Ar), 125.9 (q, C-Ar), 124.5 (t, C-Ar), 123.6 (2C, t, C-Ar), 122.9 (q, C-Ar), 120.1 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.8 (2C, t, C-Ar), 118.6 (2C, t, C-Ar), 117.9 (s, CH₂allyl), 113.7 (t, C-Ar), 80.3 (q, C(CH₃)₃), 80.1 (t, CHOMe), 75.9 (t, CH(CH₃)₂), 74.1 (s, OCH₂allyl), 57.7 (p, OCH₃), 55.6 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 21.9 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₅₀H₅₂N₈O₁₃Na [M + Na]⁺: 995.3552; found 995.3553.

tert-Butyl-4-(2-(allyloxy)-4-(3-(4-((2S,3R)-4-amino-2-(4-(4-cyanobenzamido)-benzamido)-3-methoxy-4-oxobutanamido)phenyl)ureido)-3-isopropoxy-benzamido)benzoate (22): Following the general procedure II acid **20** (34.5 mg, 129 μmol, 2.5 eq) and amine **18** (36.5 mg, 51.8 μmol, 1.0 eq) provided compound **22** as a colourless solid (26.6 mg, 27.9 μmol, 54%). Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 80 min; *t_r* = 56 min). T_M = 239 °C (decomposition); [α]_D²³ = +24.4° (*c* 1.2, MeOH); ¹H-NMR (600 MHz, DMSO-*d*₆): δ = 10.7 (1H, s, NH), 10.4 (1H, s, NH), 10.1 (1H, s, NH), 9.54 (1H, s, NH_{urea}), 8.39 (1H, d, *J* = 8.1 Hz, NHCH), 8.31 (1H, s, NH_{urea}), 8.13 – 8.10 (3H, m, ArH), 8.04 (2H, m, ArH), 7.94 – 7.81 (6H, m, ArH), 7.81 (2H, m, ArH), 7.60 (2H, m, ArH), 7.53 (1H, s, CONH₂), 7.44 – 7.40 (4H, m, ArH, CONH₂), 6.05 – 6.00 (1H, m, CH_{allyl}), 5.40 (1H, dq, *J* = 1.6, 17.1 Hz, CH_{allyl-trans}), 5.22 (1H, dq, *J* = 1.3, 10.4 Hz, CH_{allyl-cis}), 4.88 (1H, t, *J* = 8.1 Hz, CHNH), 4.63 – 4.59 (3H, m, OCH₂allyl, CHMe₂), 4.07 (1H, d, *J* = 8.1 Hz, CHOMe), 3.30 (3H, s, OCH₃), 1.54 (9H, s, C(CH₃)₃), 1.33 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-*d*₆): δ = 171.1 (q, CONH₂), 167.6 (q, CONH), 165.3 (q, CONH), 164.6 (q, CO₂*t*Bu), 164.5 (q, CONH), 164.3 (q, CONH), 152.0 (q, NHCONH), 149.3 (q, C-Ar), 143.1 (q, C-Ar), 141.7 (q, C-Ar), 138.7 (q, C-Ar), 138.4 (q, C-Ar), 137.8 (q, C-Ar), 135.0 (q, C-Ar), 133.6 (t, CHallyl), 132.5 (2C, t, C-Ar), 130.1 (2C, t, C-Ar), 129.0 (q, C-Ar), 128.6 (2C, t, C-Ar), 128.2 (2C, t, C-Ar), 125.9 (q, C-Ar), 124.5 (t, C-Ar), 123.0 (q, C-Ar), 120.1 (2C, t, C-Ar), 119.6 (2C, t, C-Ar), 118.8 (2C, t, C-Ar), 118.6 (2C, t, C-Ar), 118.3 (q, C-Ar), 117.9 (s, CH₂allyl), 117.3 (q, CN), 114.0 (q, C-Ar), 113.7 (t, C-Ar), 80.3 (q, C(CH₃)₃), 80.1 (t, CHOMe), 75.9 (t, CH(CH₃)₂), 74.1 (s, OCH₂allyl), 57.7 (p, OCH₃), 55.5 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 22.0 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₅₁H₅₃N₈O₁₁ [M + H]⁺: 953.3834; found 953.3840.

tert-Butyl-4-(4-(3-(4-((2S,3R)-4-amino-3-methoxy-2-(4-(4-nitrobenzamido)-benzamido)-4-oxobutanamido)phenyl)ureido)-2-hydroxy-3-isopropoxy-benzamido)benzoate (S6): Following the general procedure VI compound **21** (25.0 mg, 25.7 μmol, 1.0 eq) provided phenol **S6** as a yellow amorphous solid (11.5 mg, 12.3 μmol, 48%). Preparative HPLC (RP-18; run time 80 min; H₂O/MeCN = 90 : 10 → 0 : 100 in 70 min; *t_r* = 61 min). [α]_D²⁴ = +130.6° (*c* 0.9, MeCN); ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 12.5 (1H, s, OH), 10.8 (1H, s, NH), 10.6 (1H, s, NH), 10.2 (1H, s, NH), 9.61 (1H, s, NH_{urea}), 8.39 – 8.37 (3H, m, ArH, NHCH), 8.33 (1H, s, NH_{urea}), 8.21 (2H, m, ArH), 7.92 – 7.79 (10H,

m, ArH), 7.60 (2H, m, ArH), 7.53 (1H, s, CONH₂), 7.44 – 7.41 (3H, m, ArH, CONH₂), 4.89 (1H, t, *J* = 8.0 Hz, CHNH), 4.63 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.07 (1H, d, *J* = 8.0 Hz, CHOMe), 3.31 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.30 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 171.1 (q, CONH₂), 169.0 (q, CONH), 167.6 (q, CONH), 165.4 (q, CONH), 164.6 (q, CO₂tBu), 164.2 (q, CONH), 151.9 (q, NHCONH), 149.3 (q, C-Ar), 142.1 (q, C-Ar), 141.7 (q, C-Ar), 140.3 (q, C-Ar), 139.0 (q, C-Ar), 135.0 (q, C-Ar), 133.6 (q, C-Ar), 132.9 (q, C-Ar), 129.9 (2C, t, C-Ar), 129.4 (2C, t, C-Ar), 129.1 (q, C-Ar), 128.3 (2C, t, C-Ar), 126.7 (q, C-Ar), 123.6 (2C, t, C-Ar), 123.0 (t, C-Ar), 120.7 (2C, t, C-Ar), 120.2 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.7 (2C, t, C-Ar), 109.3 (t, C-Ar), 80.5 (q, C(CH₃)₃), 80.1 (t, CHOMe), 74.2 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.5 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 22.0 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₇H₄₇N₈O₁₃ [M – H][–]: 931.3268; found 931.3262.

tert-Butyl-4-(4-(3-(4-((2*S*,3*R*)-4-amino-2-(4-(4-cyanobenzamido)benzamido)-3-methoxy-4-oxobutanamido)phenyl)ureido)-2-hydroxy-3-isopropoxybenz-amido)benzoate (S7): Following the general procedure VI compound **22** (26.0 mg, 27.3 μmol, 1.0 eq) was used. Preparative HPLC (RP-18; run time 80 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 70 min; *t_r* = 26 min) [*α*]_D²⁵ = +66.7° (*c* 0.8, MeOH); ¹H-NMR (600 MHz, DMSO-d₆): δ = 12.5 (1H, br. s, OH), 10.7 (1H, s, NH), 10.5 (1H, s, NH), 10.1 (1H, s, NH), 9.62 (1H, s, NH_{urea}), 8.39 (1H, d, *J* = 8.1 Hz, NHCH), 8.34 (1H, s, NH_{urea}), 8.13 (2H, m, ArH), 8.04 (2H, m, ArH), 7.93 – 7.87 (7H, m, ArH), 7.84 (2H, m, ArH), 7.81 (1H, d, *J* = 9.3 Hz, ArH), 7.60 (2H, m, ArH), 7.53 (1H, s, CONH₂), 7.44 – 7.42 (3H, m, ArH, CONH₂), 4.89 (1H, t, *J* = 8.1 Hz, CHNH), 4.63 (1H, hept, *J* = 6.2 Hz, CHMe₂), 4.07 (1H, d, *J* = 8.1 Hz, CHOMe), 3.31 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.30 (6H, d, *J* = 6.2 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-d₆): δ = 171.1 (q, CONH₂), 169.0 (q, CONH), 167.6 (q, CONH), 165.3 (q, CONH), 164.6 (q, CO₂tBu), 164.5 (q, CONH), 154.4 (q, C-Ar), 151.9 (q, NHCONH), 142.1 (q, C-Ar), 141.7 (q, C-Ar), 139.1 (q, C-Ar), 138.7 (q, C-Ar), 135.0 (q, C-Ar), 133.6 (q, C-Ar), 132.8 (q, C-Ar), 132.5 (2C, t, C-Ar), 129.9 (2C, t, C-Ar), 129.0 (q, C-Ar), 128.6 (2C, t, C-Ar), 128.2 (2C, t, C-Ar), 126.7 (q, C-Ar), 123.0 (t, C-Ar), 120.7 (2C, t, C-Ar), 120.1 (2C, t, C-Ar), 119.6 (2C, t, C-Ar), 118.6 (2C, t, C-Ar), 118.3 (q, CN), 114.0 (q, C-Ar), 109.2 (q, C-Ar), 108.1 (t, C-Ar), 80.5 (q, C(CH₃)₃), 80.1 (t, CHOMe), 74.2 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.5 (t, CHNH), 27.8 (3C, p, C(CH₃)₃), 21.9 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₈H₄₈N₈O₁₁Na [M + Na]⁺: 935.3340; found 935.3339.

4-(4-(3-(4-((2*S*,3*R*)-4-Amino-3-methoxy-2-(4-(4-nitrobenzamido)benzamido)-4-oxobutan-amido)phenyl)ureido)-2-hydroxy-3-isopropoxybenzamido)-benzoic acid (23): Following the general procedure V phenol **S6** (9.0 mg, 9.64 μmol, 1.0 eq) was stirred for 6 h. Acid **23** was obtained as a colourless amorphous solid (5.8 mg, 6.62 μmol, 69%). [*α*]_D²⁴ = +38.7° (*c* 0.6, DMSO); ¹H-NMR (500

MHz, DMSO- d_6 +2 μ L DCO $_2$ D): δ = 10.8 (1H, s, NH), 10.6 (1H, br. s, NH), 10.2 (1H, s, NH), 9.61 (1H, s, NH_{Urea}), 8.40 – 8.37 (3H, m, ArH, NHCH), 8.33 (1H, s, NH_{Urea}), 8.20 (2H, m, ArH), 7.96 (2H, m, ArH), 7.92 – 7.84 (5H, m, ArH), 7.84 (2H, m, ArH), 7.80 (1H, d, J = 8.5 Hz, ArH), 7.60 (2H, m, ArH), 7.49 (2H, d, J = 46.1 Hz, CONH $_2$), 7.42 (2H, m, ArH), 4.89 (1H, t, J = 8.5 Hz, CHNH), 4.63 (1H, hept, J = 6.0 Hz, CHMe $_2$), 4.07 (1H, d, J = 7.3 Hz, CHOMe), 3.30 (3H, s, OCH $_3$), 1.30 (6H, d, J = 6.0 Hz, CH(CH $_3$) $_2$) ppm; 13 C-NMR (125 MHz, DMSO- d_6 +2 μ L DCO $_2$ D): δ = 171.1 (q, CONH $_2$), 169.0 (q, CONH), 167.6 (q, CONH), 167.0 (q, CO $_2$ H), 165.4 (q, CONH), 164.3 (q, CONH), 154.5 (q, C-Ar), 152.0 (q, NHCONH), 149.3 (q, C-Ar), 142.1 (q, C-Ar), 141.7 (q, C-Ar), 140.4 (q, C-Ar), 139.1 (q, C-Ar), 135.0 (q, C-Ar), 133.7 (q, C-Ar), 132.9 (q, C-Ar), 130.2 (2C, t, C-Ar), 129.4 (2C, t, C-Ar), 129.2 (q, C-Ar), 128.3 (2C, t, C-Ar), 126.2 (q, C-Ar), 123.6 (2C, t, C-Ar), 123.1 (t, C-Ar), 120.8 (2C, t, C-Ar), 120.2 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.7 (2C, t, C-Ar), 109.3 (q, C-Ar), 108.2 (t, C-Ar), 80.2 (t, CHOMe), 74.2 (t, CH(CH $_3$) $_2$), 57.7 (p, OCH $_3$), 55.6 (t, CHNH), 22.0 (2C, p, CH(CH $_3$) $_2$) ppm; HRMS (ESI): m/z calc. for C $_{43}$ H $_{40}$ N $_8$ O $_{13}$ Na [M + Na] $^+$: 899.2613; found 899.2613.

4-(4-(3-(4-((2S,3R)-4-Amino-2-(4-(4-cyanobenzamido)benzamido)-3-methoxy-4-oxo-

butanamido)phenyl)ureido)-2-hydroxy-3-isopropoxybenz-amido)benzoic acid (24): Following the general procedure V phenol **S7** (14.0 mg, 15.3 μ mol, 1.0 eq) was stirred for 30 min. Acid **24** was obtained as a yellow amorphous solid (13.0 mg, 15.2 μ mol, 99%). $[\alpha]_D^{23}$ = +37.2° (c 0.3, DMSO); 1 H-NMR (500 MHz, DMSO- d_6 +2 μ L DCO $_2$ D): δ = 12.5 (1H, s, OH), 10.7 (1H, s, NH), 10.5 (1H, s, NH), 10.1 (1H, s, NH), 9.61 (1H, s, NH_{Urea}), 8.38 (1H, d, J = 8.1 Hz, NHCH), 8.34 (1H, s, NH_{Urea}), 8.13 (2H, m, ArH), 8.04 (2H, m, ArH), 7.96 (2H, m, ArH), 7.91 – 7.83 (7H, m, ArH), 7.81 (1H, d, J = 9.2 Hz, ArH), 7.60 (2H, m, ArH), 7.52 – 7.41 (4H, m, ArH, CONH $_2$), 4.88 (1H, t, J = 8.1 Hz, CHNH), 4.62 (1H, hept, J = 6.1 Hz, CHMe $_2$), 4.06 (1H, d, J = 8.1 Hz, CHOMe), 3.30 (3H, s, OCH $_3$), 1.30 (6H, d, J = 6.1 Hz, CH(CH $_3$) $_2$) ppm; 13 C-NMR (125 MHz, DMSO- d_6 +2 μ L DCO $_2$ D): δ = 171.1 (q, CONH $_2$), 169.0 (q, CONH), 167.6 (q, CONH), 166.9 (q, CO $_2$ H), 165.3 (q, CONH), 164.5 (q, CONH), 154.3 (q, C-Ar), 151.9 (q, NHCONH), 142.0 (q, C-Ar), 141.7 (q, C-Ar), 139.1 (q, C-Ar), 138.7 (q, C-Ar), 134.9 (q, C-Ar), 133.7 (q, C-Ar), 132.5 (2C, t, C-Ar), 130.2 (2C, t, C-Ar), 129.0 (q, C-Ar), 128.6 (2C, t, C-Ar), 128.3 (2C, t, C-Ar), 126.1 (q, C-Ar), 123.0 (t, C-Ar), 120.8 (2C, t, C-Ar), 120.6 (q, C-Ar), 120.1 (2C, t, C-Ar), 119.6 (2C, t, C-Ar), 118.7 (2C, t, C-Ar), 118.3 (q, CN), 114.1 (q, C-Ar), 109.2 (q, C-Ar), 108.2 (t, C-Ar), 80.1 (t, CHOMe), 74.3 (t, CH(CH $_3$) $_2$), 57.7 (p, OCH $_3$), 55.5 (t, CHNH), 21.9 (2C, p, CH(CH $_3$) $_2$) ppm; HRMS (ESI): m/z calc. for C $_{44}$ H $_{40}$ N $_8$ O $_{11}$ Na [M + Na] $^+$: 879.2714; found 879.2714.

tert-Butyl-4-(2-(allyloxy)-4-(3-(4-((2S,3R)-4-amino-2-(4-(3-(4-cyanophenyl)-ureido)-benz-amido)-3-methoxy-4-oxobutanamido)phenyl)ureido)-3-iso-propoxybenzamido)-benzoate (26): Following the general procedure II acid **8** (26.0 mg, 92.2 μ mol, 2.5 eq) and amine **18** (26.0 mg, 36.9 μ mol, 1.0 eq)

provided compound **26** as a colourless solid (27.0 mg, 27.9 μmol , 76%). Preparative HPLC (RP-18; run time 100 min; $\text{H}_2\text{O}/\text{MeCN} = 70 : 30 \rightarrow 0 : 100$ in 80 min; $t_r = 56$ min). $T_M = 203$ °C (decomposition); $[\alpha]_D^{24} = +40.0^\circ$ (c 0.8, MeOH); $^1\text{H-NMR}$ (500 MHz, DMSO-d_6): $\delta = 10.4$ (1H, s, NH), 10.1 (1H, s, NH), 9.52 (1H, s, NH_{urea}), 9.43 (1H, s, NH_{urea}), 9.30 (1H, s, NH_{urea}), 8.31 – 8.30 (2H, m, NH_{urea} , NHCH), 8.11 (1H, d, $J = 8.8$ Hz, ArH), 7.88 (2H, m, ArH), 7.82 – 7.80 (4H, m, ArH), 7.74 (2H, m, ArH), 7.65 (2H, m, ArH), 7.60 – 7.57 (4H, m, ArH), 7.51 (1H, s, CONH_2), 7.43 – 7.40 (4H, m, ArH , CONH_2), 6.07 – 5.99 (1H, m, CH_{allyl}), 5.40 (1H, dd, $J = 1.7, 17.2$ Hz, $\text{CH}_{\text{allyl-trans}}$), 5.22 (1H, dd, $J = 1.5, 10.5$ Hz, $\text{CH}_{\text{allyl-cis}}$), 4.86 (1H, t, $J = 8.1$ Hz, CHNH), 4.64 – 4.59 (3H, m, OCH_2allyl , CHMe_2), 4.06 (1H, d, $J = 8.1$ Hz, CHOMe), 3.30 (3H, s, OCH_3), 1.54 (9H, s, $\text{C}(\text{CH}_3)_3$), 1.32 (6H, d, $J = 6.2$ Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (125 MHz, DMSO-d_6): $\delta = 171.1$ (q, CONH_2), 167.7 (q, CONH), 165.4 (q, CONH), 164.6 (q, CONH), 164.3 (q, CO_2tBu), 152.0 (q, NHCONH), 152.0 (q, NHCONH), 149.3 (q, C-Ar), 144.0 (q, C-Ar), 143.1 (q, C-Ar), 142.4 (q, C-Ar), 138.4 (q, C-Ar), 137.8 (q, C-Ar), 135.0 (q, C-Ar), 133.6 (q, C-Ar), 133.6 (t, CH_{allyl}), 133.3 (2C, t, C-Ar), 130.1 (2C, t, C-Ar), 128.5 (2C, t, C-Ar), 127.2 (q, C-Ar), 125.9 (q, C-Ar), 124.4 (t, C-Ar), 123.0 (q, C-Ar), 120.1 (2C, t, C-Ar), 119.3 (q, CN), 118.8 (2C, t, C-Ar), 118.6 (2C, t, C-Ar), 118.2 (2C, t, C-Ar), 117.9 (s, CH_2allyl), 117.5 (2C, t, C-Ar), 113.7 (t, C-Ar), 103.5 (q, C-Ar), 80.3 (q, $\text{C}(\text{CH}_3)_3$), 80.1 (t, CHOMe), 75.9 (t, $\text{CH}(\text{CH}_3)_2$), 74.1 (s, OCH_2allyl), 57.7 (p, OCH_3), 55.5 (t, CHNH), 27.9 (3C, p, $\text{C}(\text{CH}_3)_3$), 21.9 (2C, p, $\text{CH}(\text{CH}_3)_2$) ppm; HRMS (ESI): m/z calc. for $\text{C}_{51}\text{H}_{53}\text{N}_9\text{O}_{11}\text{Na}$ $[\text{M} + \text{Na}]^+$: 990.3762; found 990.3769.

tert-Butyl-4-(4-(3-(4-((2S,3R)-4-amino-2-(4-(3-(4-cyanophenyl)ureido)-benz-amido)-3-methoxy-4-oxobutanamido)phenyl)ureido)-2-hydroxy-3-iso-propoxybenzamido)benzoate (S8): Following the general procedure VI compound **26** (26.0 mg, 26.8 μmol , 1.0 eq) was used. Preparative HPLC (RP-18; run time 80 min; $\text{H}_2\text{O}/\text{MeCN} = 70 : 30 \rightarrow 0 : 100$ in 70 min; $t_r = 61$ min) provided phenol **S8** as a colourless amorphous solid (9.3 mg, 10.0 μmol , 37%). $[\alpha]_D^{22} = +43.6^\circ$ (c 0.9, MeOH); $^1\text{H-NMR}$ (600 MHz, DMSO-d_6): $\delta = 12.5$ (1H, br. s, OH), 10.6 (1H, br. s, NH), 10.1 (1H, s, NH), 9.61 (1H, s, NH_{urea}), 9.50 (1H, s, NH_{urea}), 9.36 (1H, s, NH_{urea}), 9.32 (1H, s, NH_{urea}), 8.30 (1H, d, $J = 8.1$ Hz, NHCH), 7.91 (2H, m, ArH), 7.88 – 7.79 (6H, m, ArH), 7.73 (2H, m, ArH), 7.66 (2H, m, ArH), 7.60 – 7.56 (4H, m, ArH), 7.52 – 7.38 (4H, m, ArH , CONH_2), 4.86 (1H, t, $J = 8.1$ Hz, CHNH), 4.63 (1H, hept, $J = 6.2$ Hz, CHMe_2), 4.06 (1H, d, $J = 8.1$ Hz, CHOMe), 3.30 (3H, s, OCH_3), 1.55 (9H, s, $\text{C}(\text{CH}_3)_3$), 1.30 (6H, d, $J = 6.2$ Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (125 MHz, DMSO-d_6): $\delta = 171.1$ (q, CONH_2), 169.0 (q, CONH), 167.7 (q, CONH), 165.4 (q, CONH), 164.6 (q, CO_2tBu), 154.6 (q, C-Ar), 152.0 (q, NHCONH), 151.9 (q, NHCONH), 144.0 (q, C-Ar), 142.4 (q, C-Ar), 142.2 (q, C-Ar), 139.0 (q, C-Ar), 135.0 (q, C-Ar), 133.6 (q, C-Ar), 133.3 (2C, t, C-Ar), 132.9 (q, C-Ar), 129.9 (2C, t, C-Ar), 128.5 (2C, t, C-Ar), 127.2 (q, C-Ar), 126.6 (q, C-Ar), 123.0 (t, C-Ar), 120.6 (2C, t, C-Ar), 120.1 (2C, t, C-Ar), 119.3 (q, CN), 118.6 (2C, t, C-Ar), 118.2 (2C, t, C-Ar), 117.5 (2C, t, C-Ar), 109.3 (q, C-Ar), 107.9 (t, C-Ar), 103.5 (q, C-Ar), 80.4 (q, $\text{C}(\text{CH}_3)_3$), 80.1 (t, CHOMe), 74.1 (t, $\text{CH}(\text{CH}_3)_2$), 57.7 (p, OCH_3), 55.5 (t, CHNH), 27.8 (3C, p,

C(CH₃)₃), 21.9 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₈H₄₉N₉O₁₁Na [M + Na]⁺: 950.3449; found 950.3447.

4-(4-(3-(4-((2*S*,3*R*)-4-Amino-2-(4-(3-(4-cyanophenyl)ureido)benzamido)-3-methoxy-4-oxobutanamido)phenyl)ureido)-2-hydroxy-3-isopropoxybenz-amido)benzoic acid (27): Following the general procedure V phenol **S8** (9.0 mg, 9.70 μmol, 1.0 eq) was stirred for 30 min. Acid **27** was obtained as a colourless amorphous solid (8.4 mg, 9.70 μmol, 99%). [α]_D²³ = +12.7° (*c* 1.1, MeOH); ¹H-NMR (600 MHz, DMSO-d₆ + 2 μL DCO₂D): δ = 12.5 (1H, br. s, OH), 10.5 (1H, br. s, NH), 10.1 (1H, s, NH), 9.61 (1H, s, NH_{Urea}), 9.37 (1H, s, NH_{Urea}), 9.25 (1H, s, NH_{Urea}), 8.34 (1H, s, NH_{Urea}), 8.30 (1H, d, *J* = 8.1 Hz, NHCH), 7.96 (2H, m, ArH), 7.89 (1H, d, *J* = 9.0 Hz, ArH), 7.85 – 7.80 (5H, m, ArH), 7.74 (2H, m, ArH), 7.65 (2H, m, ArH), 7.60 – 7.55 (4H, m, ArH), 7.52 – 7.41 (4H, m, ArH, CONH₂), 4.86 (1H, t, *J* = 8.1 Hz, CHNH), 4.62 (1H, hept, *J* = 6.2 Hz, CHMe₂), 4.06 (1H, d, *J* = 8.1 Hz, CHOMe), 3.30 (3H, s, OCH₃), 1.30 (6H, d, *J* = 6.2 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-d₆ + 2 μL DCO₂D): δ = 171.1 (q, CONH₂), 169.0 (q, CONH), 167.7 (q, CONH), 166.9 (q, CO₂H), 165.4 (q, CONH), 154.3 (q, C-Ar), 152.0 (q, NHCONH), 151.9 (q, NHCONH), 144.0 (q, C-Ar), 142.3 (q, C-Ar), 142.0 (q, C-Ar), 139.1 (q, C-Ar), 134.9 (q, C-Ar), 133.7 (q, C-Ar), 133.3 (2C, t, C-Ar), 132.8 (q, C-Ar), 130.2 (2C, t, C-Ar), 128.5 (2C, t, C-Ar), 127.3 (q, C-Ar), 126.2 (q, C-Ar), 123.0 (t, C-Ar), 120.8 (2C, t, C-Ar), 120.1 (2C, t, C-Ar), 119.3 (q, CN), 118.7 (2C, t, C-Ar), 118.2 (2C, t, C-Ar), 117.5 (2C, t, C-Ar), 109.2 (q, C-Ar), 108.2 (t, C-Ar), 103.5 (q, C-Ar), 80.1 (t, CHOMe), 74.3 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.5 (t, CHNH), 21.9 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₄H₄₂N₉O₁₁ [M + H]⁺: 872.3004; found 872.3004.

tert-Butyl-4-(2-(allyloxy)-4-azido-3-isopropoxybenzamido)benzoate (28): *tert*-Butylnitrite (1.13 mL, 9.50 mmol, 1.5 eq) and trimethylsilyl azide (1.26 mL, 9.50 mmol, 1.5 eq) were added dropwise to a solution of amine **9** (2.70 g, 6.34 mmol, 1.0 eq) in acetonitrile (127 mL) at 0 °C. After 2 h at rt all volatiles were removed *in vacuo*. Column chromatography (PE/EtOAc = 20:1 → 10:1) yielded azide **28** (2.86 g, 6.34 mmol, quant.) as a yellow solid. T_M = 78 °C; ¹H-NMR (400 MHz, CDCl₃): δ = 10.2 (1H, s, H-8), 8.00 – 7.96 (3H, m, H-5, H-5', H-11), 7.71 (2H, m, H-6, H-6'), 6.95 (1H, d, *J* = 8.7 Hz, H-12), 6.17 – 6.08 (1H, m, H-19), 5.48 (1H, dq, *J* = 1.4, 17.2 Hz, H-20_{trans}), 5.40 (1H, dq, *J* = 1.2, 10.3 Hz, H-20_{cis}), 4.73 (2H, dt, *J* = 1.2, 6.0 Hz, H-18), 4.60 (1H, hept, *J* = 6.2 Hz, H-16), 1.60 (9H, s, H-1), 1.36 (6H, d, *J* = 6.2 Hz, H-17) ppm; ¹³C-NMR (100 MHz, CDCl₃): δ = 165.5 (q, C-3), 162.5 (q, C-9), 151.4 (q, C-15), 143.1 (q, C-14), 142.2 (q, C-7), 139.2 (q, C-13), 132.3 (t, C-19), 130.8 (2C, t, C-5, C-5'), 127.6 (q, C-4), 127.1 (t, C-11), 123.3 (q, C-10), 120.3 (s, C-20), 119.2 (2C, t, C-6, C-6'), 116.4 (t, C-12), 81.0 (q, C-2), 76.9 (t, C-16), 75.3 (s, C-18), 28.4 (3C, p, C-1), 22.3 (2C, p, C-17)

ppm; HRMS (ESI): m/z calc. for $C_{24}H_{28}N_4O_5Na$ $[M + Na]^+$: 475.1957; found 475.1959; IR (neat): $\tilde{\nu}$ = 3318, 2980, 2118, 1708, 1672, 1589, 1528, 1252, 1101, 978, 770 cm^{-1} .

***tert*-Butyl-4-(2-(allyloxy)-4-(4-(4-aminophenyl)-1*H*-1,2,3-triazol-1-yl)-3-iso-propoxy-**

benzamido)benzoate (30): Azide **28** (2.98 g, 6.58 mmol, 1.0 eq) and 4-ethynylaniline (**29**, 771 mg, 6.56 mmol, 1.0 eq) were dissolved in a mixture of THF (55 mL) and DMSO (110 mL). Sodium ascorbate (782 mg, 3.95 mmol, 0.6 eq) was dissolved in water (5.5 mL) and added to the reaction mixture. After addition of tris[(1-benzyl-1*H*-1,2,3-triazol-4-yl)methyl]amine (1.40 g, 2.63 mmol, 0.4 eq) and $CuSO_4$ (105 mg, 0.66 mmol, 0.1 eq), the reaction was stirred at rt for 2 h. Half of the solvent was removed under reduced pressure. The residue was extracted with EtOAc (3x). The combined organic phases were washed with NH_4Cl -solution, water and brine, dried over Na_2SO_4 , filtered and concentrated *in vacuo*. Column chromatography (PE/EtOAc = 20:1) yielded the desired product **30** (3.56 g, 6.25 mmol, 95%) as yellow solid. $T_M = 75$ °C; 1H -NMR (400 MHz, $CDCl_3$): δ = 10.2 (1H, s, H-8), 8.36 (1H, s, H-21), 8.16 (1H, d, $J = 8.7$ Hz, H-11), 8.00 (2H, m, H-5, H-5'), 7.80 (1H, d, $J = 8.7$ Hz, H-12), 7.76 – 7.72 (4H, m, H-6, H-6', H-24, H-24'), 6.38 (2H, m, H-25, H-25'), 6.22 – 6.12 (1H, m, H-19), 5.53 (1H, dq, $J = 1.2, 17.1$ Hz, H-20_{trans}), 5.44 (1H, dq, $J = 1.0, 10.4$ Hz, H-20_{cis}), 4.83 (2H, d, $J = 6.0$ Hz, H-18), 4.36 (1H, hept, $J = 6.2$ Hz, H-16), 1.60 (9H, s, H-1), 1.12 (6H, d, $J = 6.2$ Hz, H-17) ppm; ^{13}C -NMR (100 MHz, $CDCl_3$): δ = 165.4 (q, C-3), 162.0 (q, C-9), 151.4 (q, C-15), 148.1 (q, C-22), 146.0 (q, C-26), 142.9 (q, C-14), 141.9 (q, C-7), 135.8 (q, C-13), 132.1 (t, C-19), 130.8 (2C, t, C-5, C-5'), 127.8 (q, C-4/C-10), 127.3 (q, C-4/C-10), 127.3 (t, C-11), 127.2 (2C, t, C-24, C-24'), 121.3 (q, C-23), 120.8 (t, C-12), 120.6 (s, C-20), 120.3 (t, C-21), 119.3 (2C, t, C-6, C-6'), 115.9 (2C, t, C-25, C-25'), 81.0 (q, C-2), 77.9 (t, C-16), 75.6 (s, C-18), 28.4 (3C, p, C-1), 22.3 (2C, p, C-17) ppm; HRMS (ESI): m/z calc. for $C_{32}H_{36}N_5O_5$ $[M + H]^+$: 570.2716; found 570.2714.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-((2*S*,3*R*)-4-amino-2-((*tert*-butoxycarbonyl)-amino)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-3-iso-propoxybenzamido)-benzoate (S9):**

Following the general procedure III using amine **30** (2.83 g, 4.97 mmol, 1.0 eq) and acid **13** (2.22 g, 8.45 mmol, 1.7 eq) compound **S9** (2.72 g, 3.34 mmol, 67%) was obtained as a yellow amorphous solid. $[\alpha]_D^{24} = -3.9^\circ$ (c 2.0, MeOH); 1H -NMR (400 MHz, $DMSO-d_6$): δ = 10.7 (1H, s, *NH*), 10.2 (1H, s, *NH*), 8.89 (1H, s, $CH_{Triazol}$), 7.93 – 7.91 (4H, m, *ArH*), 7.84 (2H, m, *ArH*), 7.76 (2H, m, *ArH*), 7.61 (1H, d, $J = 8.3$ Hz, *ArH*), 7.54 (1H, d, $J = 8.3$ Hz, *ArH*), 7.43 (2H, d, $J = 17.8$ Hz, NH_2), 6.76 (1H, d, $J = 8.4$ Hz, *NHBoc*), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, dq, $J = 1.6, 17.3$ Hz, $CH_{allyl-trans}$), 5.20 (1H, dd, $J = 1.4, 9.6$ Hz, $CH_{allyl-cis}$), 4.69 (2H, d, $J = 5.5$ Hz, OCH_2allyl), 4.40 (1H, t, $J = 7.5$ Hz, $CHNH$), 4.28 (1H, hept, $J = 6.1$ Hz, $CHMe_2$), 3.86 (1H, d, $J = 7.4$ Hz, $CHOMe$), 3.26 (3H, s, OCH_3), 1.55 (9H, s, $C(CH_3)_3$), 1.39 (9H, s, $C(CH_3)_3$), 1.01 (6H, d, $J = 6.1$ Hz, $CH(CH_3)_2$) ppm; ^{13}C -NMR (100 MHz, $DMSO-d_6$): δ = 170.7

(q, CONH₂), 168.4 (q, CONH), 168.1 (q, CO₂*t*Bu), 164.6 (q, CONH), 164.3 (q, CO₂*t*Bu), 150.3 (q, C-Ar), 146.3 (q, C-Ar_{Triazol}), 143.9 (q, C-Ar), 142.8 (q, C-Ar), 138.9 (q, C-Ar), 133.6 (q, C-Ar), 133.5 (t, CH₂allyl), 132.9 (q, C-Ar), 130.1 (2C, t, C-Ar), 126.3 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.3 (q, C-Ar), 123.9 (t, C-Ar), 122.8 (t, C-H_{Triazol}), 120.9 (t, C-Ar), 119.8 (2C, t, C-Ar), 118.9 (2C, t, C-Ar), 118.0 (s, CH₂allyl), 80.4 (t, CHOMe), 80.2 (q, C(CH₃)₃), 78.6 (q, C(CH₃)₃), 76.8 (t, CH(CH₃)₂), 74.6 (s, OCH₂allyl), 57.6 (p, OCH₃), 56.5 (t, CHNH), 28.1 (3C, p, C(CH₃)₃), 27.8 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₂H₅₁N₇O₁₀Na [M + Na]⁺: 836.33595; found 836.3596.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-((2*S*,3*R*)-2,4-diamino-3-methoxy-4-oxobutanamido)-phenyl)-1*H*-1,2,3-triazol-1-yl)-3-isopropoxybenzamido)-benzoate (31):** Following the general procedure IV compound **S9** (420 mg, 0.52 mmol, 1.0 eq) was used. Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 80 : 20 → 0 : 100 in 80 min; *t_r* = 31 min) provided amine **31** as a yellow amorphous solid (131 mg, 0.18 mmol, 36%). [α]_D²⁴ = +27.7° (*c* 1.1, MeOH); ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 10.7 (1H, s, NH), 8.93 (1H, s, CH_{Triazol}), 8.14 – 7.73 (10H, m, NH, ArH), 7.66 – 7.53 (3H, m, ArH, NH₂), 6.07 – 5.99 (1H, m, CH_{allyl}), 5.39 (1H, d, *J* = 17.2 Hz, CH_{allyl-trans}), 5.20 (1H, d, *J* = 10.3 Hz, CH_{allyl-cis}), 4.69 (2H, d, *J* = 5.5 Hz, OCH₂allyl), 4.31 – 4.13 (3H, m, CHNH₂, CHOMe, CHMe₂), 3.39 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.00 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-*d*₆): δ = 170.0 (q, CONH₂), 164.6 (q, CONH), 164.3 (q, CONH), 163.0 (q, CO₂*t*Bu), 150.3 (q, C-Ar), 146.2 (q, C-Ar_{Triazol}), 143.9 (q, C-Ar), 142.8 (q, C-Ar), 138.2 (q, C-Ar), 133.6 (q, C-Ar), 133.5 (t, CH₂allyl), 133.0 (q, C-Ar), 130.1 (2C, t, C-Ar), 126.3 (q, C-Ar), 126.0 (2C, t, C-Ar), 125.9 (q, C-Ar), 123.9 (t, C-Ar), 122.9 (t, C-H_{Triazol}), 120.9 (t, C-Ar), 120.0 (2C, t, C-Ar), 118.9 (2C, t, C-Ar), 118.0 (s, CH₂allyl), 80.4 (q, C(CH₃)₃), 78.7 (t, CHOMe), 76.8 (t, CH(CH₃)₂), 74.6 (s, OCH₂allyl), 58.6 (p, OCH₃), 54.3 (t, CHNH₂), 27.9 (3C, p, C(CH₃)₃), 21.9 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₃₇H₄₄N₇O₈ [M + H]⁺: 714.3251; found 714.3250.

4-(4-Fluorobenzamido)-benzoic acid (39): 4-Fluorobenzoyl chloride (**33**, 3.5 mL, 29.2 mmol, 4.0 eq) was dropped to a solution of 4-aminobenzoic acid (**7**, 1.0 g, 7.29 mmol, 1.0 eq) and Na₂CO₃ (1.55 g, 14.6 mmol, 2.0 eq) in water/THF (47 mL, 1:1). After stirring vigorously at rt for 3 h, the filtrate was filtered and washed with hot water (1.5 L). Acid **39** (1.85 g, 7.15 mmol, 98%) was obtained after drying at high vacuum as colourless solid. *T_M* = 301 °C; ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 12.8 (1H, s, CO₂H), 10.5 (1H, s, H-6), 8.07 – 8.03 (2H, m, H-9, H-9'), 7.95 – 7.89 (4H, m, H-3, H-3', H-4, H-4'), 7.41 – 7.36 (2H, m, H-10, H-10') ppm; ¹³C-NMR (100 MHz, DMSO-*d*₆): δ = 166.9 (q, C-1), 164.8 (q, C-7), 164.2 (d, *J* = 249.4 Hz, C-11), 143.2 (q, C-5), 131.1 (d, *J* = 2.9 Hz, C-8), 130.6 (d, *J* = 9.2 Hz, C-9, C-9'), 130.2 (2C, t, C-3, C-3'), 125.5 (q, C-2), 119.5 (2C, t, C-4, C-4'), 115.4 (d, *J* = 21.8 Hz, C-10, C-10') ppm; HRMS (ESI): *m/z* calc. for C₁₄H₉NO₃F [M – H]⁻: 258.0566; found 258.0564.

4-(5-Cyanopicolinamido)-benzoic acid (40): Following the general procedure I using amine **32** (32.6 mg, 0.17 mmol) and acid **34** (50 mg, 0.34 mmol) intermediate was isolated and used directly for *t*Bu-saponification following to general procedure V. Acid **40** (33.7 mg, 0.13 mmol, 75%) was obtained as a beige solid. $T_M = 354\text{ }^\circ\text{C}$; $^1\text{H-NMR}$ (400 MHz, DMSO- d_6): $\delta = 12.8$ (1H, s, CO_2H), 11.1 (1H, s, H-6), 9.22 (1H, d, $J = 1.7$ Hz, H-12), 8.60 (1H, dd, $J = 1.7, 8.1$ Hz, H-10), 8.31 (1H, d, $J = 8.1$ Hz, H-9), 8.06 (2H, m, H-4, H-4'), 7.95 (2H, m, H-3, H-3') ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO- d_6): $\delta = 166.9$ (q, C-1), 161.8 (q, C-7), 152.3 (q, C-8), 151.5 (t, C-10), 142.3 (t, C-12), 142.1 (q, C-5), 130.2 (2C, t, C-3, C-3'), 126.2 (q, C-2), 122.6 (t, C-9), 120.0 (2C, t, C-4, C-4'), 116.6 (q, CN), 111.8 (q, C-11) ppm; HRMS (ESI): m/z calc. for $\text{C}_{14}\text{H}_8\text{N}_3\text{O}_3$ $[\text{M} - \text{H}]^-$: 266.0566; found 266.0564.

4-(4-Cyano-3-fluorobenzamido)-benzoic acid (41): Following the general procedure I using amine **32** (58.5 mg, 0.30 mmol) and acid **35** (100 mg, 0.61 mmol) intermediate was isolated and used directly for *t*Bu-saponification following to general procedure V. Acid **41** (57.0 mg, 0.20 mmol, 66%) was obtained as a colourless solid. $T_M = 298\text{ }^\circ\text{C}$; $^1\text{H-NMR}$ (400 MHz, DMSO- d_6): $\delta = 12.8$ (1H, s, CO_2H), 10.8 (1H, s, H-6), 8.16 – 8.13 (1H, m, H-9), 8.08 – 8.05 (1H, m, H-13), 7.98 – 7.95 (3H, m, H-4, H-4', H-10), 7.91 – 7.88 (2H, m, H-3, H-3') ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO- d_6): $\delta = 166.8$ (q, C-1), 163.5 (q, C-7), 162.1 (d, $J = 238.1$ Hz, C-12), 142.6 (q, C-5), 141.5 (d, $J = 7.3$ Hz, C-8), 134.3 (t, C-9), 130.3 (2C, t, C-3, C-3'), 126.1 (q, C-2), 124.7 (d, $J = 3.5$ Hz, C-10), 119.7 (2C, t, C-4, C-4'), 115.8 (d, $J = 21.4$ Hz, C-13), 113.6 (q, CN), 102.9 (d, $J = 15.3$ Hz, C-11) ppm; HRMS (ESI): m/z calc. for $\text{C}_{15}\text{H}_8\text{N}_2\text{O}_3\text{F}$ $[\text{M} - \text{H}]^-$: 283.0519; found 283.0516.

4-(Isonicotinamido)-benzoic acid (42): Following to general procedure I using amine **32** (78.4 mg, 0.41 mmol) and acid **36** (100 mg, 0.81 mmol) the intermediate was isolated and directly used for *t*Bu-saponification following the general procedure V. Acid **42** (92.3 mg, 0.38 mmol, 94%) was obtained as a beige solid. $T_M = 381\text{ }^\circ\text{C}$; $^1\text{H-NMR}$ (400 MHz, DMSO- d_6): $\delta = 12.8$ (1H, s, CO_2H), 10.8 (1H, s, H-6), 8.82 (2H, m, H-10, H-10'), 7.97 (2H, m, H-4, H-4'), 7.92 – 7.91 (2H, m, H-3, H-3'), 7.90 – 7.89 (2H, m, H-9, H-9') ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO- d_6): $\delta = 166.9$ (q, C-1), 164.3 (q, C-7), 149.9 (2C, t, C-10, C-10'), 142.6 (q, C-5), 142.1 (q, C-8), 130.3 (2C, t, C-4, C-4'), 126.1 (q, C-2), 121.9 (2C, t, C-9, C-9'), 119.7 (2C, t, C-3, C-3') ppm; HRMS (ESI): m/z calc. for $\text{C}_{13}\text{H}_9\text{N}_2\text{O}_3$ $[\text{M} - \text{H}]^-$: 241.0613; found 241.0608.

4-(6-Cyanonicotinamido)-benzoic acid (43): Following the general procedure I using amine **32** (65.2 mg, 0.34 mmol) and acid **37** (100 mg, 0.68 mmol) intermediate was isolated and used directly for

*t*Bu-saponification following the general procedure V. Acid **43** (75.0 mg, 0.28 mmol, 83%) was obtained as a beige solid. $T_M = 289\text{ }^\circ\text{C}$ (decomposition); $^1\text{H-NMR}$ (400 MHz, DMSO- d_6): $\delta = 12.7$ (1H, s, CO_2H), 10.9 (1H, s, H-6), 9.23 (1H, d, $J = 1.9$ Hz, H-12), 8.53 (1H, dd, $J = 1.9, 8.0$ Hz, H-9), 8.26 (1H, d, $J = 8.0$ Hz, H-10), 7.97 (2H, m, H-4, H-4'), 7.90 (2H, m, H-3, H-3') ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO- d_6): $\delta = 166.8$ (q, C-1), 163.1 (q, C-7), 150.2 (t, C-12), 142.5 (q, C-5), 137.3 (t, C-9), 134.5 (q, C-8), 133.4 (q, C-11), 130.4 (2C, t, C-4, C-4'), 128.8 (t, C-10), 126.2 (q, C-2), 119.6 (2C, t, C-3, C-3'), 117.1 (q, CN) ppm; HRMS (ESI): m/z calc. for $\text{C}_{14}\text{H}_8\text{N}_3\text{O}_3$ $[\text{M} - \text{H}]^-$: 266.0566; found 266.0565.

4-(3-(4-Cyanophenyl)-propanamido)-benzoic acid (44): Following the general procedure I using amine **32** (55.1 mg, 0.29 mmol) and acid **38** (100 mg, 0.57 mmol) the intermediate was isolated and directly used for the next step, the *t*Bu-saponification following the general procedure V. Acid **44** (66.0 mg, 0.22 mmol, 79%) was obtained as a colourless solid. $T_M = 280\text{ }^\circ\text{C}$; $^1\text{H-NMR}$ (400 MHz, DMSO- d_6): $\delta = 12.7$ (1H, br. s, CO_2H), 10.3 (1H, s, H-6), 7.87 (2H, m, H-3, H-3'), 7.76 (2H, m, H-12, H-12'), 7.67 (2H, m, H-4, H-4'), 7.47 (2H, m, H-11, H-11'), 3.00 (2H, t, $J = 7.5$ Hz, H-9), 2.71 (2H, t, $J = 7.5$ Hz, H-8) ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO- d_6): $\delta = 170.5$ (q, C-7), 166.9 (q, C-1), 147.2 (q, C-10), 143.1 (q, C-5), 132.2 (2C, t, C-12, C-12'), 130.4 (2C, t, C-3, C-3'), 129.4 (2C, t, C-11, C-11'), 125.0 (q, C-2), 119.0 (q, CN), 118.3 (2C, t, C-4, C-4'), 108.9 (q, C-13), 37.1 (s, C-8), 30.5 (s, C-9) ppm; HRMS (ESI): m/z calc. for $\text{C}_{17}\text{H}_{13}\text{N}_2\text{O}_3$ $[\text{M} - \text{H}]^-$: 293.0926; found 293.0924.

tert-Butyl-4-(2-(allyloxy)-4-(4-((2*S*,3*R*)-4-amino-3-methoxy-2-(4-(4-nitro-benzamido)-benzamido)-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-3-isopropoxybenzamido)-benzoate (S10): Following the general procedure II acid **19** (32.0 mg, 112 μmol , 2.5 eq) and amine **31** (32.0 mg, 44.9 μmol , 1.0 eq) provided compound **S10** as a colourless amorphous solid (20.1 mg, 20.5 μmol , 45%). Preparative HPLC (RP-18; run time 100 min; $\text{H}_2\text{O}/\text{MeCN} = 70 : 30 \rightarrow 0 : 100$ in 80 min; $t_r = 58$ min). $[\alpha]_D^{24} = +48.6^\circ$ (c 2.0, DMSO); $^1\text{H-NMR}$ (400 MHz, DMSO- d_6): $\delta = 10.8$ (1H, s, *NH*), 10.7 (1H, s, *NH*), 10.4 (1H, s, *NH*), 8.90 (1H, s, $\text{CH}_{\text{Triazol}}$), 8.50 (1H, d, $J = 7.9$ Hz, *NHCH*), 8.39 (2H, m, *ArH*), 8.21 (2H, m, *ArH*), 7.94 – 7.92 (8H, m, *ArH*), 7.84 (2H, m, *ArH*), 7.80 (2H, m, *ArH*), 7.62 – 7.60 (2H, m, *ArH*, CONH_2), 7.54 (1H, d, $J = 8.4$ Hz, *ArH*), 7.48 (1H, s, CONH_2), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, d, $J = 17.2$ Hz, $\text{CH}_{\text{allyl-trans}}$), 5.21 (1H, d, $J = 10.3$ Hz, $\text{CH}_{\text{allyl-cis}}$), 4.92 (1H, t, $J = 7.9$ Hz, CHNH), 4.69 (2H, d, $J = 4.8$ Hz, OCH_2allyl), 4.28 (1H, hept, $J = 6.0$ Hz, CHMe_2), 4.11 (1H, d, $J = 7.9$ Hz, CHOMe), 3.32 (3H, s, OCH_3), 1.55 (9H, s, $\text{C}(\text{CH}_3)_3$), 1.01 (6H, d, $J = 6.0$ Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO- d_6): $\delta = 171.1$ (q, CONH_2), 168.2 (q, CONH), 165.4 (q, CONH), 164.6 (q, CO_2tBu), 164.3 (q, CONH), 164.3 (q, CONH), 150.3 (q, C-Ar), 149.3 (q, C-Ar), 146.3 (q, C-Ar $_{\text{Triazol}}$), 144.0 (q, C-Ar), 142.9 (q, C-Ar), 141.7 (q, C-Ar), 140.3 (q, C-Ar), 138.9 (q, C-Ar), 133.7 (q, C-Ar), 133.5 (q, C-Ar), 133.0 (t, CH_{allyl}), 130.2 (q, C-Ar), 129.4 (2C, t, C-Ar), 129.1 (q, C-Ar), 128.3 (2C, t, C-Ar), 126.3 (2C,

t, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (2C, t, C-Ar), 123.9 (t, C-Ar), 123.6 (2C, t, C-Ar), 122.8 (t, C-Ar_{Triazol}), 120.9 (t, C-Ar), 119.8 (q, C-Ar), 119.7 (2C, t, C-Ar), 118.9 (2C, t, C-Ar), 118.0 (s, CH₂allyl), 80.4 (q, C(CH₃)₃), 80.1 (t, CHOMe), 76.9 (t, CH(CH₃)₂), 74.6 (s, OCH₂allyl), 57.8 (p, OCH₃), 55.7 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 21.9 (2C, p, CH(CH₃)₂) ppm; **HRMS** (ESI): *m/z* calc. for C₅₁H₅₁N₉O₁₂Na [M + Na]⁺: 1004.3555; found 1004.3553.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(4-cyanobenzamido)-benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-3-isopropoxybenzamido)-benzoate**

(S11): Following the general procedure II acid **20** (30.0 mg, 112 μmol, 2.5 eq) and amine **31** (32.0 mg, 44.9 μmol, 1.0 eq) provided compound **S11** as a colourless amorphous solid (19.2 mg, 20.0 μmol, 44%). Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 80 min; *t_r* = 56 min). [*α*]_D²⁵ = +53.4° (*c* 1.9, DMSO); ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 10.8 (1H, s, *NH*), 10.7 (1H, s, *NH*), 10.4 (1H, s, *NH*), 8.90 (1H, s, *CH*_{Triazol}), 8.51 (1H, d, *J* = 8.1 Hz, *NHCH*), 8.13 (2H, m, *ArH*), 8.04 (2H, m, *ArH*), 7.94 – 7.90 (8H, m, *ArH*), 7.84 (2H, m, *ArH*), 7.79 (2H, m, *ArH*), 7.61 – 7.60 (2H, m, *ArH*, CONH₂), 7.53 (1H, d, *J* = 8.3 Hz, *ArH*), 7.47 (1H, s, CONH₂), 6.05 – 5.97 (1H, m, *CH*_{allyl}), 5.38 (1H, d, *J* = 17.3 Hz, *CH*_{allyl-trans}), 5.20 (1H, d, *J* = 10.5 Hz, *CH*_{allyl-cis}), 4.92 (1H, t, *J* = 8.1 Hz, CHNH), 4.69 (2H, d, *J* = 5.0 Hz, OCH₂allyl), 4.28 (1H, hept, *J* = 6.0 Hz, *CHMe*₂), 4.11 (1H, d, *J* = 8.1 Hz, CHOMe), 3.31 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.01 (6H, d, *J* = 6.0 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-*d*₆): δ = 171.0 (q, CONH₂), 168.2 (q, CONH), 165.4 (q, CONH), 164.6 (q, CO₂*t*Bu), 164.5 (q, CONH), 164.3 (q, CONH), 150.3 (q, C-Ar), 146.3 (q, C-Ar_{Triazol}), 144.0 (q, C-Ar), 142.9 (q, C-Ar), 141.8 (q, C-Ar), 138.9 (q, C-Ar), 138.7 (q, C-Ar), 133.6 (q, C-Ar), 133.5 (q, C-Ar), 133.0 (t, *CH*_{allyl}), 132.5 (2C, t, C-Ar), 130.2 (q, C-Ar), 129.0 (q, C-Ar), 128.7 (2C, t, C-Ar), 128.3 (2C, t, C-Ar), 126.3 (2C, t, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (2C, t, C-Ar), 123.9 (t, C-Ar), 122.8 (t, C-Ar_{Triazol}), 120.9 (t, C-Ar), 119.8 (q, C-Ar), 119.6 (2C, t, C-Ar), 118.9 (2C, t, C-Ar), 118.3 (q, CN), 118.0 (s, CH₂allyl), 114.1 (q, C-Ar), 80.4 (q, C(CH₃)₃), 80.1 (t, CHOMe), 76.8 (t, CH(CH₃)₂), 74.6 (s, OCH₂allyl), 57.7 (p, OCH₃), 55.7 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 21.9 (2C, p, CH(CH₃)₂) ppm; **HRMS** (ESI): *m/z* calc. for C₅₂H₅₁N₉O₁₀Na [M + Na]⁺: 984.3657; found 984.3649.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(4-fluorobenzamido)-benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-3-isopropoxybenzamido)-benzoate**

(S12): Following the general procedure II acid **39** (43.6 mg, 168 μmol, 2.5 eq) and amine **31** (48.0 mg, 67.2 μmol, 1.0 eq) provided compound **S12** as a beige solid (33.9 mg, 35.5 μmol, 53%). Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 80 min; *t_r* = 59 min). *T_M* = 231 °C (decomposition); [*α*]_D²² = +87.8° (*c* 0.5, MeOH); ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 10.7 (1H, s, *NH*), 10.5 (1H, s, *NH*), 10.4 (1H, s, *NH*), 8.90 (1H, s, *CH*_{Triazol}), 8.45 (1H, d, *J* = 8.1 Hz, *NHCH*), 8.08 – 8.05

(2H, m, ArH), 7.94 – 7.88 (8H, m, ArH), 7.85 (2H, m, ArH), 7.80 (2H, m, ArH), 7.62 – 7.47 (4H, m, ArH, CONH₂), 7.41 – 7.32 (2H, m, ArH), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, dd, *J* = 1.5, 17.1 Hz, CH_{allyl-trans}), 5.21 (1H, d, *J* = 10.6 Hz, CH_{allyl-cis}), 4.92 (1H, t, *J* = 8.1 Hz, CHNH), 4.69 (2H, d, *J* = 5.3 Hz, OCH₂allyl), 4.28 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.10 (1H, d, *J* = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.01 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 171.0 (q, CONH₂), 168.2 (q, CONH), 165.4 (q, CONH), 164.7 (q, CO₂tBu), 164.6 (q, CONH), 164.3 (q, CONH), 164.2 (d, *J* = 254.2 Hz, C-F), 150.3 (q, C-Ar), 146.3 (q, C-Ar_{Triazol}), 143.9 (q, C-Ar), 142.8 (q, C-Ar), 142.1 (q, C-Ar), 138.9 (q, C-Ar), 133.6 (q, C-Ar), 133.5 (t, CH_{allyl}), 132.9 (q, C-Ar), 131.1 (d, *J* = 2.8 Hz, C-Ar), 130.5 (2C, d, *J* = 9.2 Hz, C-Ar), 130.1 (2C, t, C-Ar), 128.6 (q, C-Ar), 128.2 (2C, t, C-Ar), 126.3 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.9 (t, C-Ar), 122.8 (t, C-Ar_{Triazol}), 120.9 (t, C-Ar), 119.8 (2C, t, C-Ar), 119.5 (2C, t, C-Ar), 118.9 (2C, t, C-Ar), 118.0 (s, CH₂allyl), 115.4 (2C, d, *J* = 21.9 Hz, C-Ar), 80.4 (q, C(CH₃)₃), 80.1 (t, CHOMe), 76.8 (t, CH(CH₃)₂), 74.6 (s, OCH₂allyl), 57.7 (p, OCH₃), 55.7 (t, CHNH), 27.8 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₅₁H₅₁N₈O₁₀FNa [M + Na]⁺: 977.3610; found 977.3611.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(5-cyanopicolin-amido)-benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-3-isopropoxy-benzamido)benzoate**

(S13): Following the general procedure II acid **40** (31.8 mg, 119 μmol, 2.5 eq) and amine **31** (34.0 mg, 47.6 μmol, 1.0 eq) provided compound **S13** as a beige amorphous solid (23.0 mg, 23.9 μmol, 50%). Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 80 min; *t_r* = 56 min). [*α*]_D²² = +27.7° (*c* 0.3, MeOH); ¹H-NMR (400 MHz, DMSO-d₆): δ = 11.0 (1H, s, NH), 10.7 (1H, s, NH), 10.4 (1H, s, NH), 9.22 (1H, br. s, ArH), 8.90 (1H, s, CH_{Triazol}), 8.60 (1H, dd, *J* = 1.7, 8.1 Hz, ArH), 8.49 (1H, d, *J* = 8.1 Hz, NHCH), 8.31 (1H, d, *J* = 8.1 Hz, ArH), 8.06 (2H, m, ArH), 7.94 – 7.89 (6H, m, ArH), 7.85 (2H, m, ArH), 7.80 (2H, m, ArH), 7.61 (1H, d, *J* = 8.3 Hz, ArH), 7.54 (1H, d, *J* = 8.3 Hz, ArH), 7.53 (2H, d, *J* = 40.9 Hz, CONH₂), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, d, *J* = 17.2 Hz, CH_{allyl-trans}), 5.20 (1H, d, *J* = 10.4 Hz, CH_{allyl-cis}), 4.92 (1H, t, *J* = 8.1 Hz, CHNH), 4.69 (2H, d, *J* = 5.1 Hz, OCH₂allyl), 4.28 (1H, hept, *J* = 6.0 Hz, CHMe₂), 4.11 (1H, d, *J* = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.01 (6H, d, *J* = 6.0 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 171.0 (q, CONH₂), 168.2 (q, CONH), 165.4 (q, CONH), 164.6 (q, CO₂tBu), 164.3 (q, CONH), 161.7 (q, CONH), 152.3 (q, C-Ar), 151.5 (q, C-Ar), 150.3 (t, C-Ar), 146.3 (q, C-Ar_{Triazol}), 143.9 (q, C-Ar), 142.8 (q, C-Ar), 142.3 (t, C-Ar), 141.1 (q, C-Ar), 138.9 (q, C-Ar), 133.6 (q, C-Ar), 133.5 (q, C-Ar), 132.9 (t, CH_{allyl}), 130.2 (2C, t, C-Ar), 129.3 (q, C-Ar), 128.2 (2C, t, C-Ar), 126.3 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.9 (t, C-Ar), 122.8 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.9 (t, C-Ar), 119.9 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 118.9 (2C, t, C-Ar), 118.0 (s, CH₂allyl), 116.6 (q, CN), 111.8 (q, C-Ar), 80.4 (q, C(CH₃)₃), 80.0 (t, CHOMe), 76.8 (t, CH(CH₃)₂), 74.6 (s, OCH₂allyl), 57.7 (p, OCH₃), 55.7

(t, CHNH), 27.8 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₅₁H₅₀N₁₀O₁₀Na [M + Na]⁺: 985.3609; found 985.3609.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-((2*S*,3*R*)-4-amino-2-(4-(4-cyano-3-fluoro-benzamido)-benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-3-isopropoxybenzamido)benzoate (S14):**

Following the general procedure II acid **41** (47.7 mg, 168 μmol, 2.5 eq) and amine **31** (48.0 mg, 67.2 μmol, 1.0 eq) provided compound **S14** as a colourless amorphous solid (56.2 mg, 57.4 μmol, 85%). Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 80 min; *t_r* = 59 min). [α]_D²³ = +36.7° (*c* 0.3, MeOH); ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 10.8 (1H, s, NH), 10.7 (1H, s, NH), 10.4 (1H, s, NH), 8.90 (1H, s, CH_{Triazol}), 8.47 (1H, d, *J* = 8.4 Hz, NHCH), 8.17 – 8.13 (1H, m, ArH), 8.09 – 8.06 (1H, m, ArH), 7.99 – 7.96 (1H, m, ArH), 7.94 – 7.90 (8H, m, ArH), 7.84 (2H, m, ArH), 7.79 (2H, m, ArH), 7.61 (1H, d, *J* = 8.3 Hz, ArH), 7.56 – 7.47 (3H, m, ArH, CONH₂), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, dd, *J* = 1.5, 17.2 Hz, CH_{allyl-trans}), 5.21 (1H, dd, *J* = 1.2, 10.4 Hz, CH_{allyl-cis}), 4.92 (1H, t, *J* = 8.1 Hz, CHNH), 4.69 (2H, d, *J* = 5.4 Hz, OCH₂allyl), 4.28 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.09 (1H, d, *J* = 7.9 Hz, CHOMe), 3.31 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.01 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-*d*₆): δ = 171.0 (q, CONH₂), 168.1 (q, CONH), 165.4 (q, CONH), 164.6 (q, CO₂*t*Bu), 164.3 (q, CONH), 163.5 (q, CONH), 162.1 (d, *J* = 223.0 Hz, C-F), 150.3 (q, C-Ar), 146.3 (q, C-Ar_{Triazol}), 143.9 (q, C-Ar), 142.8 (q, C-Ar), 141.5 (d, *J* = 5.5 Hz, CCONH), 138.9 (q, C-Ar), 134.3 (t, C-Ar), 133.6 (q, C-Ar), 133.5 (t, CH_{allyl}), 132.9 (q, C-Ar), 130.1 (2C, t, C-Ar), 129.2 (q, C-Ar), 128.3 (2C, t, C-Ar), 126.3 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 124.7 (d, *J* = 3.3 Hz, CHCHCONH), 123.9 (t, C-Ar), 122.7 (t, C-Ar_{Triazol}), 120.9 (t, C-Ar), 120.7 (q, CN), 119.8 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.9 (2C, t, C-Ar), 118.0 (s, CH₂allyl), 115.8 (d, *J* = 21.8 Hz, CHCF), 113.6 (q, C-Ar), 102.9 (d, *J* = 15.3 Hz, CCN), 80.4 (q, C(CH₃)₃), 80.0 (t, CHOMe), 76.8 (t, CH(CH₃)₂), 74.6 (s, OCH₂allyl), 57.7 (p, OCH₃), 55.7 (t, CHNH), 27.8 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₅₂H₅₁N₉O₁₀F [M + H]⁺: 980.3743; found 980.3753.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-((2*S*,3*R*)-4-amino-2-(4-(isonicotinamido)-benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-3-isopropoxybenzamido)benzoate (S15):**

Following to the general procedure II acid **42** (32.2 mg, 133 μmol, 2.5 eq) and amine **31** (38.0 mg, 53.2 μmol, 1.0 eq) provided compound **S15** as a colourless amorphous solid (26.7 mg, 28.5 μmol, 54%). Preparative HPLC (RP-18; run time 100 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 80 min; *t_r* = 50 min). [α]_D²⁴ = +32.4° (*c* 2.3, MeOH); ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 10.8 (1H, s, NH), 10.7 (1H, s, NH), 10.4 (1H, s, NH), 8.90 (1H, s, CH_{Triazol}), 8.81 (2H, d, *J* = 5.8 Hz, ArH), 8.51 (1H, d, *J* = 8.1 Hz, NHCH), 7.94 – 7.88 (10H, m, ArH), 7.85 (2H, m, ArH), 7.80 (2H, m, ArH), 7.62 – 7.47 (4H, m, ArH, CONH₂),

6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, dd, $J = 1.6, 17.2$ Hz, $CH_{\text{allyl-trans}}$), 5.21 (1H, dd, $J = 1.5, 10.5$ Hz, $CH_{\text{allyl-cis}}$), 4.92 (1H, t, $J = 8.1$ Hz, $CHNH$), 4.69 (2H, d, $J = 5.4$ Hz, $OCH_2\text{allyl}$), 4.28 (1H, hept, $J = 6.1$ Hz, $CHMe_2$), 4.11 (1H, d, $J = 8.1$ Hz, $CHOMe$), 3.32 (3H, s, OCH_3), 1.55 (9H, s, $C(CH_3)_3$), 1.01 (6H, d, $J = 6.1$ Hz, $CH(CH_3)_2$) ppm; ^{13}C -NMR (100 MHz, DMSO- d_6): $\delta = 171.0$ (q, $CONH_2$), 168.2 (q, $CONH$), 165.4 (q, $CONH$), 164.6 (q, CO_2tBu), 164.3 (q, $CONH$), 164.3 (q, $CONH$), 150.3 (2C, t, C-Ar), 150.3 (q, C-Ar), 146.3 (q, C-Ar_{Triazol}), 143.9 (q, C-Ar), 142.8 (q, C-Ar), 141.7 (q, C-Ar), 141.6 (q, C-Ar), 138.9 (q, C-Ar), 133.6 (q, C-Ar), 133.5 (t, CH_{allyl}), 132.9 (q, C-Ar), 130.1 (2C, t, C-Ar), 129.1 (q, C-Ar), 128.3 (2C, t, C-Ar), 126.3 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (2C, t, C-Ar), 123.9 (t, C-Ar), 122.8 (t, C-Ar_{Triazol}), 121.6 (2C, t, C-Ar), 120.9 (t, C-Ar), 119.8 (q, C-Ar), 119.7 (2C, t, C-Ar), 118.9 (2C, t, C-Ar), 118.0 (s, $CH_2\text{allyl}$), 80.4 (q, $C(CH_3)_3$), 80.1 (t, $CHOMe$), 76.8 (t, $CH(CH_3)_2$), 74.6 (s, $OCH_2\text{allyl}$), 57.7 (p, OCH_3), 55.7 (t, $CHNH$), 27.8 (3C, p, $C(CH_3)_3$), 21.8 (2C, p, $CH(CH_3)_2$) ppm; HRMS (ESI): m/z calc. for $C_{50}H_{51}N_9O_{10}Na$ [$M + Na$] $^+$: 960.3657; found 960.3654.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-((2*S*,3*R*)-4-amino-2-(4-(6-cyanonicotin-amido)-benz-amido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-3-isopropoxybenz-amido)benzoate**

(S16): Following the general procedure II acid **43** (35.5 mg, 133 μmol , 2.5 eq) and amine **31** (38.0 mg, 53.2 μmol , 1.0 eq) provided compound **S16** as a beige amorphous solid (34.4 mg, 35.7 μmol , 67%). Preparative HPLC (RP-18; run time 100 min; $H_2O/MeCN = 70 : 30 \rightarrow 0 : 100$ in 80 min; $t_r = 55$ min). $[\alpha]_D^{23} = +30.5^\circ$ (c 3.3, MeOH); 1H -NMR (400 MHz, DMSO- d_6): $\delta = 10.9$ (1H, s, NH), 10.7 (1H, s, NH), 10.4 (1H, s, NH), 9.24 (1H, d, $J = 1.9$ Hz, ArH), 8.90 (1H, s, CH_{Triazol}), 8.55 (1H, dd, $J = 1.9, 8.0$ Hz, ArH), 8.48 (1H, d, $J = 8.2$ Hz, $NHCH$), 8.25 (1H, d, $J = 8.0$ Hz, ArH), 7.94 – 7.88 (8H, m, ArH), 7.84 (2H, m, ArH), 7.79 (2H, m, ArH), 7.61 (1H, d, $J = 8.3$ Hz, ArH), 7.54 (1H, d, $J = 8.3$ Hz, ArH), 7.52 (2H, d, $J = 39.5$ Hz, $CONH_2$), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, dd, $J = 1.6, 17.2$ Hz, $CH_{\text{allyl-trans}}$), 5.21 (1H, dd, $J = 1.5, 10.5$ Hz, $CH_{\text{allyl-cis}}$), 4.92 (1H, t, $J = 8.1$ Hz, $CHNH$), 4.69 (2H, d, $J = 5.5$ Hz, $OCH_2\text{allyl}$), 4.28 (1H, hept, $J = 6.1$ Hz, $CHMe_2$), 4.10 (1H, d, $J = 8.0$ Hz, $CHOMe$), 3.32 (3H, s, OCH_3), 1.55 (9H, s, $C(CH_3)_3$), 1.01 (6H, d, $J = 6.1$ Hz, $CH(CH_3)_2$) ppm; ^{13}C -NMR (100 MHz, DMSO- d_6): $\delta = 171.0$ (q, $CONH_2$), 168.2 (q, $CONH$), 165.4 (q, $CONH$), 164.6 (q, CO_2tBu), 164.3 (q, $CONH$), 163.0 (q, $CONH$), 150.3 (q, C-Ar), 150.2 (t, C-Ar), 146.3 (q, C-Ar_{Triazol}), 143.9 (q, C-Ar), 142.8 (q, C-Ar), 141.5 (q, C-Ar), 138.9 (q, C-Ar), 137.3 (t, C-Ar), 134.5 (q, C-Ar), 133.6 (q, C-Ar), 133.5 (t, CH_{allyl}), 133.4 (q, C-Ar), 132.9 (q, C-Ar), 130.1 (2C, t, C-Ar), 129.2 (q, C-Ar), 128.8 (t, C-Ar), 128.3 (2C, t, C-Ar), 126.3 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.9 (t, C-Ar), 122.8 (t, C-Ar_{Triazol}), 120.9 (t, C-Ar), 119.8 (2C, t, C-Ar), 119.6 (2C, t, C-Ar), 118.9 (2C, t, C-Ar), 118.0 (s, $CH_2\text{allyl}$), 117.1 (q, CN), 80.4 (q, $C(CH_3)_3$), 80.0 (t, $CHOMe$), 76.8 (t, $CH(CH_3)_2$), 74.6 (s, $OCH_2\text{allyl}$), 57.7 (p, OCH_3), 55.7 (t, $CHNH$), 27.8 (3C, p, $C(CH_3)_3$), 21.8 (2C, p, $CH(CH_3)_2$) ppm; HRMS (ESI): m/z calc. for $C_{51}H_{51}N_{10}O_{10}$ [$M + H$] $^+$: 963.3790; found 963.3795.

***tert*-Butyl-4-(2-(allyloxy)-4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(3-(4-cyanophenyl)-propan-amido)benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-3-**

isopropoxybenzamido)benzoate (S17): Following the general procedure II acid **44** (39.0 mg, 133 μmol , 2.5 eq) and amine **31** (38.0 mg, 53.2 μmol , 1.0 eq) provided phenol **S19** as a yellow amorphous solid (10.1 mg, 11.0 μmol , 56%). Preparative HPLC (RP-18; run time 100 min; $\text{H}_2\text{O}/\text{MeCN} = 70 : 30 \rightarrow 0 : 100$ in 80 min; $t_r = 57$ min). $[\alpha]_D^{25} = +23.2^\circ$ (c 2.7, MeOH); $^1\text{H-NMR}$ (400 MHz, DMSO-d_6): $\delta = 10.7$ (1H, s, NH), 10.4 (1H, s, NH), 10.2 (1H, s, NH), 8.90 (1H, s, $\text{CH}_{\text{Triazol}}$), 8.41 (1H, d, $J = 8.0$ Hz, NHCH), 7.94 – 7.91 (4H, m, ArH), 7.86 – 7.75 (8H, m, ArH), 7.68 (2H, m, ArH), 7.61 (1H, d, $J = 8.3$ Hz, ArH), 7.57 – 7.53 (2H, m, ArH, CONH_2), 7.49 – 7.47 (3H, m, ArH, CONH_2), 6.07 – 5.97 (1H, m, CH_{allyl}), 5.38 (1H, d, $J = 17.2$ Hz, $\text{CH}_{\text{allyl-trans}}$), 5.21 (1H, d, $J = 10.4$ Hz, $\text{CH}_{\text{allyl-cis}}$), 4.89 (1H, t, $J = 8.0$ Hz, CHNH), 4.69 (2H, d, $J = 5.1$ Hz, OCH_2allyl), 4.28 (1H, hept, $J = 6.0$ Hz, CHMe_2), 4.09 (1H, d, $J = 8.0$ Hz, CHOMe), 3.30 (3H, s, OCH_3), 3.01 (2H, t, $J = 7.4$ Hz, ArCH_2CH_2), 2.71 (2H, t, $J = 7.4$ Hz, ArCH_2CH_2), 1.55 (9H, s, $\text{C}(\text{CH}_3)_3$), 1.01 (6H, d, $J = 6.0$ Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO-d_6): $\delta = 171.0$ (q, CONH_2), 170.4 (q, CONH), 168.2 (q, CONH), 165.4 (q, CONH), 164.6 (q, CO_2tBu), 164.3 (q, CONH), 150.3 (q, C-Ar), 147.3 (q, C-Ar), 146.3 (q, C-Ar $_{\text{Triazol}}$), 143.9 (q, C-Ar), 142.8 (q, C-Ar), 142.1 (q, C-Ar), 138.9 (q, C-Ar), 133.6 (q, C-Ar), 133.5 (t, CH_{allyl}), 133.0 (q, C-Ar), 132.3 (2C, t, C-Ar), 130.2 (2C, t, C-Ar), 129.5 (2C, t, C-Ar), 128.4 (2C, t, C-Ar), 128.0 (q, C-Ar), 126.3 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.9 (t, C-Ar), 122.8 (t, C-Ar $_{\text{Triazol}}$), 120.9 (t, C-Ar), 119.8 (2C, t, C-Ar), 119.0 (q, CN), 118.9 (2C, t, C-Ar), 118.2 (s, CH_2allyl), 118.0 (2C, t, C-Ar), 108.9 (q, C-Ar), 80.4 (q, $\text{C}(\text{CH}_3)_3$), 80.0 (t, CHOMe), 76.8 (t, $\text{CH}(\text{CH}_3)_2$), 74.6 (s, OCH_2allyl), 57.7 (p, OCH_3), 55.7 (t, CHNH), 37.1 (s, ArCH_2CH_2), 30.6 (s, ArCH_2CH_2), 27.9 (3C, p, $\text{C}(\text{CH}_3)_3$), 21.9 (2C, p, $\text{CH}(\text{CH}_3)_2$) ppm; HRMS (ESI): m/z calc. for $\text{C}_{54}\text{H}_{56}\text{N}_9\text{O}_{10}$ $[\text{M} + \text{H}]^+$: 990.4150; found 990.4148.

***tert*-Butyl 4-(4-(4-(4-((2*S*,3*R*)-4-amino-3-methoxy-2-(4-(4-nitrobenzamido)-benzamido)-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxybenzamido)-benzoate**

(S18): Following the general procedure VI compound **S10** (20.0 mg, 20.4 μmol , 1.0 eq) was used. Preparative HPLC (RP-18; run time 80 min; $\text{H}_2\text{O}/\text{MeCN} = 70 : 30 \rightarrow 0 : 100$ in 70 min; $t_r = 53$ min) provided Phenol **S18** as a yellow amorphous solid (8.5 mg, 9.03 μmol , 44%). $[\alpha]_D^{24} = +42.9^\circ$ (c 0.9, DMSO); $^1\text{H-NMR}$ (600 MHz, DMSO-d_6): $\delta = 12.2$ (1H, br. s, OH), 11.1 (1H, br. s, NH), 10.8 (1H, s, NH), 10.4 (1H, s, NH), 8.92 (1H, s, $\text{CH}_{\text{Triazol}}$), 8.44 (1H, d, $J = 8.1$ Hz, NHCH), 8.39 (2H, m, ArH), 8.21 (2H, m, ArH), 7.95 – 7.87 (11H, m, ArH), 7.79 (2H, m, ArH), 7.51 (2H, d, $J = 46.5$ Hz, CONH_2), 7.30 (1H, d, $J = 8.0$ Hz, ArH), 4.93 (1H, t, $J = 8.1$ Hz, CHNH), 4.28 (1H, hept, $J = 6.1$ Hz, CHMe_2), 4.09 (1H, d, $J = 8.1$ Hz, CHOMe), 3.32 (3H, s, OCH_3), 1.56 (9H, s, $\text{C}(\text{CH}_3)_3$), 1.02 (6H, d, $J = 6.1$ Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (125 MHz, DMSO-d_6): $\delta = 171.0$ (q, CONH_2), 168.2 (q, CONH), 167.4 (q, CONH), 165.4 (q, CONH), 164.5 (q, CO_2tBu), 164.2 (q, CONH), 151.5 (q, C-Ar), 149.3 (q, C-Ar), 146.2 (q, C-Ar $_{\text{Triazol}}$), 142.1 (q, C-Ar), 141.7 (q, C-Ar), 140.3 (q, C-Ar), 138.9 (q, C-Ar), 138.9 (q, C-

Ar), 134.3 (q, C-Ar), 130.0 (2C, t, C-Ar), 129.3 (2C, t, C-Ar), 129.1 (q, C-Ar), 128.3 (2C, t, C-Ar), 126.8 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (t, C-Ar), 124.9 (q, C-Ar), 123.6 (2C, t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.5 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.4 (q, C-Ar), 114.1 (t, C-Ar), 80.5 (q, C(CH₃)₃), 80.1 (t, CHOMe), 75.4 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.7 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₈H₄₇N₉O₁₂Na [M + Na]⁺: 964.3242; found 964.3229.

***tert*-Butyl-4-(4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(4-cyanobenzamido)benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxybenzamido)-benzoate**

(S19): Following the general procedure VI compound **S11** (19.0 mg, 20.4 μmol, 1.0 eq) provided phenol **S19** as a yellow amorphous solid (10.1 mg, 11.0 μmol, 56%). Preparative HPLC (RP-18; run time 80 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 70 min; *t_r* = 52 min). [*α*]_D²³ = +49.6° (*c* 1.0, DMSO); ¹H-NMR (500 MHz, DMSO-*d*₆): δ = 12.2 (1H, br. s, OH), 11.0 (1H, br. s, NH), 10.7 (1H, s, NH), 10.4 (1H, s, NH), 8.90 (1H, s, CH_{Triazol}), 8.44 (1H, d, *J* = 8.1 Hz, NHCH), 8.13 (2H, m, ArH), 8.05 (2H, m, ArH), 7.96 – 7.87 (11H, m, ArH), 7.79 (2H, m, ArH), 7.51 (2H, d, *J* = 37.9 Hz, CONH₂), 7.32 (1H, d, *J* = 8.6 Hz, ArH), 4.92 (1H, t, *J* = 8.1 Hz, CHNH), 4.27 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.09 (1H, d, *J* = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.56 (9H, s, C(CH₃)₃), 1.02 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-*d*₆): δ = 171.0 (q, CONH₂), 168.2 (q, CONH), 167.4 (q, CONH), 165.4 (q, CONH), 164.5 (q, CO₂*t*Bu), 164.5 (q, CONH), 155.0 (q, C-Ar), 146.2 (q, C-Ar_{Triazol}), 142.0 (q, C-Ar), 141.8 (q, C-Ar), 138.9 (q, C-Ar), 138.8 (q, C-Ar), 138.7 (q, C-Ar), 134.3 (q, C-Ar), 132.5 (2C, t, C-Ar), 130.0 (2C, t, C-Ar), 129.0 (q, C-Ar), 128.6 (2C, t, C-Ar), 128.3 (2C, t, C-Ar), 126.9 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.6 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.5 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.6 (2C, t, C-Ar), 118.4 (q, C-Ar), 118.3 (q, CN), 114.4 (q, C-Ar), 114.1 (t, C-Ar), 80.5 (q, C(CH₃)₃), 80.1 (t, CHOMe), 75.5 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.7 (t, CHNH), 27.8 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₉H₄₈N₉O₁₀ [M + H]⁺: 922.3524; found 922.3529.

***tert*-Butyl-4-(4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(4-fluorobenzamido)benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxybenzamido)-benzoate**

(S20): Following the general procedure VI compound **S12** (33.9 mg, 35.5 μmol, 1.0 eq) provided Phenol **S20** as a yellow amorphous solid (20.1 mg, 22.0 μmol, 62%). Preparative HPLC (RP-18; run time 80 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 70 min; *t_r* = 51 min). [*α*]_D²⁴ = +29.2° (*c* 1.8, MeOH); ¹H-NMR (400 MHz, DMSO-*d*₆): δ = 12.2 (1H, br. s, OH), 11.4 (1H, s, NH), 10.5 (1H, s, NH), 10.4 (1H, s, NH), 8.91 (1H, s, CH_{Triazol}), 8.42 (1H, d, *J* = 8.1 Hz, NHCH), 8.08 – 8.05 (2H, m, ArH), 7.95 – 7.86 (11H, m, ArH), 7.79 (2H, m, ArH), 7.51 (2H, d, *J* = 30.8 Hz, CONH₂), 7.39 (2H, m, ArH), 7.25 (1H, d, *J* = 8.6 Hz,

ArH), 4.93 (1H, t, $J = 8.1$ Hz, CHNH), 4.32 (1H, hept, $J = 6.1$ Hz, CHMe₂), 4.10 (1H, d, $J = 8.1$ Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.01 (6H, d, $J = 6.1$ Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): $\delta = 171.0$ (q, CONH₂), 168.2 (q, CONH), 167.4 (q, CONH), 165.0 (q, CONH), 164.7 (q, CO₂tBu), 164.6 (q, CONH), 164.2 (d, $J = 249.2$ Hz, C-F), 156.0 (q, C-Ar), 146.1 (q, C-Ar_{Triazol}), 142.2 (q, C-Ar), 142.1 (q, C-Ar), 139.0 (q, C-Ar), 138.8 (q, C-Ar), 134.2 (q, C-Ar), 131.1 (d, $J = 2.9$ Hz, C-Ar), 130.5 (2C, d, $J = 9.2$ Hz, C-Ar), 130.0 (2C, t, C-Ar), 128.6 (q, C-Ar), 128.2 (2C, t, C-Ar), 126.7 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.5 (q, C-Ar), 123.6 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.3 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.5 (2C, t, C-Ar), 118.4 (q, C-Ar), 115.4 (2C, d, $J = 21.8$ Hz, C-Ar), 113.5 (t, C-Ar), 80.5 (q, C(CH₃)₃), 80.1 (t, CHOMe), 75.1 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.6 (t, CHNH), 27.8 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): m/z calc. for C₄₈H₄₇N₈O₁₀FNa [M + Na]⁺: 937.3297; found 937.3273.

***tert*-Butyl-4-(4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(5-cyanopicolinamido)-benz-amido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxy-benzamido)benzoate**

(S21): Following the general procedure VI compound **S13** (23.0 mg, 23.9 μ mol, 1.0 eq) provided phenol **S21** as a yellow amorphous solid (21.8 mg, 23.6 μ mol, 99%). Preparative HPLC (RP-18; run time 80 min; H₂O/MeCN = 70 : 30 \rightarrow 0 : 100 in 70 min; $t_r = 51$ min). $[\alpha]_D^{24} = +15.4^\circ$ (c 1.1, MeOH); ¹H-NMR (400 MHz, DMSO-d₆): $\delta = 12.2$ (1H, br. s, OH), 11.0 (1H, s, NH), 10.4 (1H, s, NH), 9.22 (1H, br. s, ArH), 8.87 (1H, s, CH_{Triazol}), 8.60 (1H, dd, $J = 2.0, 8.1$ Hz, ArH), 8.44 (1H, d, $J = 8.1$ Hz, NHCH), 8.31 (1H, d, $J = 8.1$ Hz, ArH), 8.06 (2H, m, ArH), 7.92 – 7.85 (9H, m, ArH), 7.78 (2H, m, ArH), 7.50 (2H, d, $J = 31.1$ Hz, CONH₂), 7.08 (1H, br. s, ArH), 4.92 (1H, t, $J = 8.1$ Hz, CHNH), 4.40 (1H, br. s, CHMe₂), 4.09 (1H, d, $J = 8.1$ Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.00 (6H, d, $J = 6.1$ Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): $\delta = 171.0$ (q, CONH₂), 168.1 (q, CONH), 167.3 (q, CONH), 165.4 (q, CONH), 164.6 (q, CO₂tBu), 163.0 (q, C-Ar), 161.7 (q, CONH), 152.3 (q, C-Ar), 151.5 (t, C-Ar), 146.0 (q, C-Ar_{Triazol}), 142.7 (q, C-Ar), 142.3 (t, C-Ar), 141.0 (q, C-Ar), 139.5 (q, C-Ar), 138.8 (q, C-Ar), 134.0 (q, C-Ar), 130.0 (2C, t, C-Ar), 129.3 (q, C-Ar), 128.2 (2C, t, C-Ar), 126.2 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.6 (q, C-Ar), 123.7 (t, C-Ar), 122.6 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.0 (2C, t, C-Ar), 119.9 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 118.5 (q, C-Ar), 116.6 (q, CN), 111.8 (q, C-Ar), 80.4 (q, C(CH₃)₃), 80.1 (t, CHOMe), 74.4 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.7 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 21.9 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): m/z calc. for C₄₈H₄₆N₁₀O₁₀Na [M + Na]⁺: 945.3296; found 945.3298.

***tert*-Butyl-4-(4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(4-cyano-3-fluorobenzamido)-benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxy-**

benzamido)benzoate (S22): Following to the **general procedure VI** compound **S14** (56.2 mg, 57.4 μmol , 1.0 eq) provided phenol **S22** as a colourless amorphous solid (22.4 mg, 23.8 μmol , 42%). Preparative HPLC (RP-18; run time 80 min; $\text{H}_2\text{O}/\text{MeCN} = 70 : 30 \rightarrow 0 : 100$ in 70 min; $t_r = 50$ min). $[\alpha]_D^{23} = +21.8^\circ$ (c 1.1, MeOH); $^1\text{H-NMR}$ (400 MHz, DMSO-d_6): $\delta = 12.2$ (1H, br. s, OH), 11.0 (1H, s, NH), 10.8 (1H, s, NH), 10.4 (1H, s, NH), 8.92 (1H, s, $\text{CH}_{\text{Triazol}}$), 8.45 (1H, d, $J = 8.1$ Hz, NHCH), 8.16 – 8.13 (1H, m, ArH), 8.09 – 8.06 (1H, m, ArH), 7.99 – 7.86 (12H, m, ArH), 7.79 (2H, m, ArH), 7.51 (2H, d, $J = 30.5$ Hz, CONH_2), 7.32 (1H, d, $J = 8.6$ Hz, ArH), 4.93 (1H, t, $J = 8.1$ Hz, CHNH), 4.28 (1H, hept, $J = 6.1$ Hz, CHMe_2), 4.10 (1H, d, $J = 8.1$ Hz, CHOMe), 3.32 (3H, s, OCH_3), 1.55 (9H, s, $\text{C}(\text{CH}_3)_3$), 1.02 (6H, d, $J = 6.1$ Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO-d_6): $\delta = 171.0$ (q, CONH_2), 168.2 (q, CONH), 167.4 (q, CONH), 165.4 (q, CONH), 164.5 (q, CO_2tBu), 163.5 (q, CONH), 162.1 (d, $J = 223.6$ Hz, C-F), 155.2 (q, C-Ar), 146.2 (q, C-Ar $_{\text{Triazol}}$), 142.0 (q, C-Ar), 141.5 (q, C-Ar), 141.5 (d, $J = 7.2$ Hz, CCONH), 141.5 (q, C-Ar), 138.9 (q, C-Ar), 138.8 (q, C-Ar), 134.3 (d, $J = 7.0$ Hz, CHCCN), 130.0 (2C, t, C-Ar), 129.2 (q, C-Ar), 128.3 (2C, t, C-Ar), 126.9 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 124.7 (d, $J = 3.5$ Hz, CHCHCCONH), 123.6 (t, C-Ar), 122.6 (t, C-Ar $_{\text{Triazol}}$), 120.5 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.3 (q, CN), 115.8 (d, $J = 21.3$ Hz, CHCF), 114.2 (t, C-Ar), 113.6 (q, C-Ar), 102.9 (d, $J = 15.3$ Hz, CCN), 80.5 (q, $\text{C}(\text{CH}_3)_3$), 80.1 (t, CHOMe), 75.5 (t, $\text{CH}(\text{CH}_3)_2$), 57.7 (p, OCH_3), 55.7 (t, CHNH), 27.8 (3C, p, $\text{C}(\text{CH}_3)_3$), 21.8 (2C, p, $\text{CH}(\text{CH}_3)_2$) ppm; HRMS (ESI): m/z calc. for $\text{C}_{49}\text{H}_{46}\text{N}_9\text{O}_{10}\text{FNa}$ $[\text{M} + \text{Na}]^+$: 962.3249; found 962.3253.

tert-Butyl-4-(4-(4-(4-((2S,3R)-4-amino-2-(4-(isonicotinamido)benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1H-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxybenzamido)-benzoate

(S23): Following to the general procedure VI compound **S15** (26.7 mg, 28.4 μmol , 1.0 eq) provided phenol **S23** as a yellow amorphous solid (16.5 mg, 18.4 μmol , 65%). Preparative HPLC (RP-18; run time 80 min; $\text{H}_2\text{O}/\text{MeCN} = 70 : 30 \rightarrow 0 : 100$ in 70 min; $t_r = 45$ min). $[\alpha]_D^{23} = +22.1^\circ$ (c 0.9, MeOH); $^1\text{H-NMR}$ (600 MHz, DMSO-d_6): $\delta = 12.2$ (1H, br. s, OH), 10.8 (1H, s, NH), 10.7 (1H, s, NH), 10.4 (1H, s, NH), 8.93 (1H, s, $\text{CH}_{\text{Triazol}}$), 8.82 (2H, m, ArH), 8.45 (1H, d, $J = 8.1$ Hz, NHCH), 7.97 – 7.87 (13H, m, ArH), 7.79 (2H, m, ArH), 7.51 (2H, d, $J = 49.8$ Hz, CONH_2), 7.36 (1H, d, $J = 8.6$ Hz, ArH), 4.93 (1H, t, $J = 8.0$ Hz, CHNH), 4.25 (1H, hept, $J = 6.1$ Hz, CHMe_2), 4.10 (1H, d, $J = 8.1$ Hz, CHOMe), 3.32 (3H, s, OCH_3), 1.56 (9H, s, $\text{C}(\text{CH}_3)_3$), 1.02 (6H, d, $J = 6.1$ Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (125 MHz, DMSO-d_6): $\delta = 171.0$ (q, CONH_2), 168.2 (q, CONH), 167.4 (q, CONH), 165.4 (q, CONH), 164.5 (q, CO_2tBu), 163.0 (q, CONH), 154.6 (q, C-Ar), 150.4 (2C, t, C-Ar), 146.3 (q, C-Ar $_{\text{Triazol}}$), 141.9 (q, C-Ar), 141.6 (q, C-Ar), 138.9 (q, C-Ar), 138.7 (q, C-Ar), 134.4 (q, C-Ar), 131.5 (q, C-Ar), 130.0 (2C, t, C-Ar), 129.1 (q, C-Ar), 128.8 (2C, t, C-Ar), 127.0 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.6 (t, C-Ar), 122.6 (t, C-Ar $_{\text{Triazol}}$), 121.8 (2C, t, C-Ar), 120.6 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.4 (q, C-Ar), 114.7 (t, C-Ar), 80.5 (q, $\text{C}(\text{CH}_3)_3$), 80.1 (t, CHOMe), 76.7 (t, $\text{CH}(\text{CH}_3)_2$), 57.7

(p, OCH₃), 55.7 (t, CHNH), 27.8 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₇H₄₈N₉O₁₀ [M + H]⁺: 898.3524; found 898.3525.

***tert*-Butyl-4-(4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(6-cyanonicotinamido)-benz-amido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxy-benzamido)benzoate**

(S24): Following to the general procedure VI compound **S16** (26.7 mg, 27.7 μmol, 1.0 eq) provided phenol **S24** as a yellow amorphous solid (24.4 mg, 26.5 μmol, 95%). Preparative HPLC (RP-18; run time 80 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 70 min; t_r = 47 min). [α]_D²³ = +19.5° (*c* 1.2, MeOH); ¹H-NMR (400 MHz, DMSO-d₆): δ = 12.2 (1H, br. s, OH), 11.4 (1H, br. s, NH), 10.9 (1H, s, NH), 10.4 (1H, s, NH), 9.24 (1H, d, *J* = 2.0 Hz, ArH), 8.90 (1H, s, CH_{Triazol}), 8.55 (1H, dd, *J* = 2.0, 8.1 Hz, ArH), 8.46 (1H, d, *J* = 8.2 Hz, NHCH), 8.25 (1H, d, *J* = 8.1 Hz, ArH), 7.94 – 7.86 (11H, m, ArH), 7.79 (2H, m, ArH), 7.51 (2H, d, *J* = 31.3 Hz, CONH₂), 7.25 (1H, d, *J* = 8.5 Hz, ArH), 4.93 (1H, t, *J* = 8.1 Hz, CHNH), 4.31 (1H, hept, *J* = 6.0 Hz, CHMe₂), 4.10 (1H, d, *J* = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.55 (9H, s, C(CH₃)₃), 1.02 (6H, d, *J* = 6.0 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 171.0 (q, CONH₂), 168.1 (q, CONH), 167.4 (q, CONH), 165.4 (q, CONH), 164.6 (q, CO₂tBu), 163.0 (q, CONH), 155.9 (q, C-Ar), 150.2 (t, C-Ar), 146.1 (q, C-Ar_{Triazol}), 142.2 (q, C-Ar), 141.5 (q, C-Ar), 139.0 (q, C-Ar), 138.8 (q, C-Ar), 137.3 (t, C-Ar), 134.5 (q, C-Ar), 134.2 (q, C-Ar), 133.4 (q, C-Ar), 130.0 (2C, t, C-Ar), 129.2 (q, C-Ar), 128.8 (t, C-Ar), 128.3 (2C, t, C-Ar), 126.7 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.5 (q, C-Ar), 123.6 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.4 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.6 (2C, t, C-Ar), 118.4 (q, C-Ar), 117.1 (q, CN), 113.5 (t, C-Ar), 80.5 (q, C(CH₃)₃), 80.1 (t, CHOMe), 75.2 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.7 (t, CHNH), 27.9 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₈H₄₇N₁₀O₁₀ [M + H]⁺: 923.3477; found 923.3469.

***tert*-Butyl-4-(4-(4-(4-((2*S*,3*R*)-4-amino-2-(4-(3-(4-cyanophenyl)-propan-amido)-benz-amido)-3-methoxy-4-oxobutanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-2-hydroxy-3-**

isopropoxybenzamido)benzoate (S25): Following to the general procedure VI compound **S17** (29.5 mg, 29.8 μmol, 1.0 eq) provided Phenol **S25** as a yellow amorphous solid (19.8 mg, 20.9 μmol, 70%). Preparative HPLC (RP-18; run time 80 min; H₂O/MeCN = 70 : 30 → 0 : 100 in 70 min; t_r = 49 min). [α]_D²² = +14.9° (*c* 1.0, MeOH); ¹H-NMR (400 MHz, DMSO-d₆): δ = 12.2 (1H, br. s, OH), 11.2 (1H, s, NH), 10.4 (1H, s, NH), 10.2 (1H, s, NH), 8.92 (1H, s, CH_{Triazol}), 8.37 (1H, d, *J* = 8.0 Hz, NHCH), 7.95 – 7.87 (7H, m, ArH), 7.83 – 7.75 (6H, m, ArH), 7.68 (2H, m, ArH), 7.54 – 7.46 (4H, m, ArH, CONH₂), 7.29 (1H, d, *J* = 8.5 Hz, ArH), 4.90 (1H, t, *J* = 8.0 Hz, CHNH), 4.29 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.08 (1H, d, *J* = 8.0 Hz, CHOMe), 3.31 (3H, s, OCH₃), 3.01 (2H, t, *J* = 7.4 Hz, ArCH₂CH₂), 2.71 (2H, t, *J* = 7.5 Hz, ArCH₂CH₂), 1.55 (9H, s, C(CH₃)₃), 1.02 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (100 MHz, DMSO-d₆): δ = 171.1 (q, CONH₂), 170.5 (q, CONH), 168.2 (q, CONH), 167.4 (q,

CONH), 165.5 (q, CONH), 164.6 (q, CO₂tBu), 147.3 (q, C-Ar), 146.2 (q, C-Ar_{Triazol}), 142.1 (q, C-Ar), 139.0 (q, C-Ar), 138.9 (q, C-Ar), 134.3 (q, C-Ar), 132.3 (2C, t, C-Ar), 130.0 (2C, t, C-Ar), 129.5 (2C, t, C-Ar), 128.4 (2C, t, C-Ar), 128.1 (q, C-Ar), 126.9 (q, C-Ar), 125.9 (2C, t, C-Ar), 125.5 (q, C-Ar), 123.6 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.5 (2C, t, C-Ar), 119.9 (2C, t, C-Ar), 119.0 (q, C-Ar), 118.5 (q, CN), 118.3 (2C, t, C-Ar), 108.9 (q, C-Ar), 80.6 (q, C(CH₃)₃), 80.1 (t, CHOMe), 75.4 (t, CH(CH₃)₂), 57.8 (p, OCH₃), 55.7 (t, CHNH), 37.2 (s, ArCH₂CH₂), 30.6 (s, ArCH₂CH₂), 27.9 (3C, p, C(CH₃)₃), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₅₁H₅₁N₉O₁₀Na [M + Na]⁺: 972.3657; found 972.3661.

4-(4-(4-(4-((2*S*,3*R*)-4-Amino-3-methoxy-2-(4-(4-nitrobenzamido)benzamido)-4-oxo-butanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxy-benzamido)-benzoic acid (45): Following to the general procedure V Phenol **S18** (8.5 mg, 9.03 μmol, 1.0 eq) was stirred for 6 h. Acid **45** was obtained as a colourless amorphous solid (6.2 mg, 7.00 μmol, 78%). [α]_D²⁴ = +37.1° (*c* 0.1, DMSO); ¹H-NMR (500 MHz, DMSO-d₆): δ = 12.9 (1H, br. s, CO₂H), 12.2 (1H, br. s, OH), 10.8 (1H, br. s, NH), 10.8 (1H, s, NH), 10.4 (1H, s, NH), 8.93 (1H, s, CH_{Triazol}), 8.44 (1H, d, *J* = 8.1 Hz, NHCH), 8.39 (2H, m, ArH), 8.21 (2H, m, ArH), 8.00 – 7.87 (11H, m, ArH), 7.79 (2H, m, ArH), 7.50 (2H, d, *J* = 39.2 Hz, CONH₂), 7.37 (1H, d, *J* = 8.6 Hz, ArH), 4.92 (1H, t, *J* = 8.1 Hz, CHNH), 4.24 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.09 (1H, d, *J* = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.02 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-d₆): δ = 171.0 (q, CONH₂), 168.2 (q, CONH), 167.5 (q, CONH), 166.9 (q, CO₂H), 165.4 (q, CONH), 164.2 (q, CONH), 154.5 (q, C-Ar), 149.3 (q, C-Ar), 146.3 (q, C-Ar_{Triazol}), 141.9 (q, C-Ar), 141.7 (q, C-Ar), 140.3 (q, C-Ar), 138.9 (q, C-Ar), 138.7 (q, C-Ar), 134.4 (q, C-Ar), 130.7 (2C, t, C-Ar), 130.3 (q, C-Ar), 129.4 (2C, t, C-Ar), 128.7 (2C, t, C-Ar), 128.3 (q, C-Ar), 126.5 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (t, C-Ar), 123.6 (2C, t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.6 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.4 (q, C-Ar), 114.8 (t, C-Ar), 80.1 (t, CHOMe), 75.7 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.7 (t, CHNH), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₄H₄₀N₉O₁₂ [M + H]⁺: 886.2796; found 886.2798.

4-(4-(4-(4-((2*S*,3*R*)-4-Amino-2-(4-(4-cyanobenzamido)benzamido)-3-methoxy-4-oxo-butanamido)phenyl)-1*H*-1,2,3-triazol-1-yl)-2-hydroxy-3-iso-propoxybenzamido)-benzoic acid (46): Following the general procedure V Phenol **S19** (10.1 mg, 11.0 μmol, 1.0 eq) was stirred for 3 h. Acid **46** was obtained as a beige amorphous solid (7.4 mg, 8.55 μmol, 78%). [α]_D²⁵ = +55.9° (*c* 0.2, DMSO); ¹H-NMR (600 MHz, DMSO-d₆): δ = 12.8 (1H, br. s, CO₂H), 12.2 (1H, br. s, OH), 10.8 (1H, br. s, NH), 10.7 (1H, s, NH), 10.4 (1H, s, NH), 8.93 (1H, s, CH_{Triazol}), 8.43 (1H, d, *J* = 8.1 Hz, NHCH), 8.13 (2H, m, ArH), 8.05 (2H, m, ArH), 7.99 – 7.87 (11H, m, ArH), 7.79 (2H, m, ArH), 7.50 (2H, d, *J* = 45.0 Hz, CONH₂), 7.34 (1H, d, *J* = 7.0 Hz, ArH), 4.92 (1H, t, *J* = 8.1 Hz, CHNH), 4.26 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.09 (1H, d, *J* = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.02 (6H, d, *J* = 6.1 Hz,

CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-d₆): δ = 171.0 (q, CONH₂), 168.2 (q, CONH), 167.4 (q, CONH), 166.8 (q, CO₂H), 165.4 (q, CONH), 164.5 (q, CONH), 154.7 (q, C-Ar), 146.2 (q, C-Ar_{Triazol}), 141.9 (q, C-Ar), 141.7 (q, C-Ar), 138.9 (q, C-Ar), 138.8 (q, C-Ar), 138.7 (q, C-Ar), 134.3 (q, C-Ar), 132.5 (2C, t, C-Ar), 130.3 (2C, t, C-Ar), 129.0 (q, C-Ar), 128.6 (2C, t, C-Ar), 128.3 (2C, t, C-Ar), 126.4 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.5 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.6 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.6 (2C, t, C-Ar), 118.4 (q, C-Ar), 118.3 (q, CN), 114.6 (q, C-Ar), 114.0 (t, C-Ar), 80.1 (t, CHOMe), 75.6 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.6 (t, CHNH), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₅H₄₀N₉O₁₀ [M + H]⁺: 866.2898; found 866.2897.

4-(4-(4-(4-((2S,3R)-4-Amino-2-(4-(4-fluorobenzamido)benzamido)-3-methoxy-4-oxo-butanamido)phenyl)-1H-1,2,3-triazol-1-yl)-2-hydroxy-3-iso-propoxybenzamido)-benzoic acid (47): Following the general procedure V phenol **S20** (20.1 mg, 22.0 μmol, 1.0 eq) was stirred for 3.5 h. Acid **47** was obtained as an orange amorphous solid (19.1 mg, 19.6 μmol, 89%). [α]_D²⁴ = +27.6° (*c* 0.9, DMSO); ¹H-NMR (600 MHz, DMSO-d₆): δ = 12.2 (1H, br. s, OH), 10.8 (1H, s, NH), 10.5 (1H, s, NH), 10.4 (1H, s, NH), 8.93 (1H, s, CH_{Triazol}), 8.41 (1H, d, *J* = 8.1 Hz, NHCH), 8.07 – 8.05 (2H, m, ArH), 8.00 – 7.87 (11H, m, ArH), 7.79 (2H, m, ArH), 7.50 (2H, d, *J* = 47.2 Hz, CONH₂), 7.40 – 7.36 (3H, m, ArH), 4.92 (1H, t, *J* = 8.1 Hz, CHNH), 4.25 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.09 (1H, d, *J* = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.03 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-d₆): δ = 171.0 (q, CONH₂), 168.2 (q, CONH), 167.5 (q, CONH), 166.9 (q, CO₂H), 165.0 (q, CONH), 164.7 (q, CONH), 164.4 (d, *J* = 311.0 Hz, C-F), 158.2 (TFA), 154.5 (q, C-Ar), 146.3 (q, C-Ar_{Triazol}), 142.1 (q, C-Ar), 141.9 (q, C-Ar), 138.9 (q, C-Ar), 138.7 (q, C-Ar), 134.4 (q, C-Ar), 131.1 (d, *J* = 2.8 Hz, C-Ar), 130.5 (2C, d, *J* = 9.1 Hz, C-Ar), 130.3 (2C, t, C-Ar), 129.8 (TFA), 128.6 (q, C-Ar), 128.2 (2C, t, C-Ar), 126.5 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.5 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.6 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.5 (2C, t, C-Ar), 118.4 (q, C-Ar), 115.4 (2C, d, *J* = 21.8 Hz, C-Ar), 114.8 (t, C-Ar), 80.1 (t, CHOMe), 75.7 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.6 (t, CHNH), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₄H₄₀N₈O₁₀F [M + H]⁺: 859.2851; found 859.2851.

4-(4-(4-(4-((2S,3R)-4-Amino-2-(4-(5-cyanopicolinamido)benzamido)-3-methoxy-4-oxo-butanamido)phenyl)-1H-1,2,3-triazol-1-yl)-2-hydroxy-3-iso-propoxybenzamido)-benzoic acid (48): Following the general procedure V phenol **S21** (21.8 mg, 23.6 μmol, 1.0 eq) was stirred for 6 h. Acid **48** was obtained as a yellow amorphous solid (8.2 mg, 9.47 μmol, 40%). [α]_D²⁴ = +27.2° (*c* 0.8, DMSO); ¹H-NMR (600 MHz, DMSO-d₆): δ = 12.9 (1H, br. s, CO₂H), 12.2 (1H, br. s, OH), 11.0 (1H, s, NH), 10.8 (1H, s, NH), 10.4 (1H, s, NH), 9.22 (1H, dd, *J* = 0.7, 2.0 Hz, ArH), 8.93 (1H, s, CH_{Triazol}), 8.61 (1H, dd, *J* = 2.0, 8.2 Hz, ArH), 8.43 (1H, d, *J* = 8.1 Hz, NHCH), 8.31 (1H, dd, *J* = 0.7, 8.2 Hz, ArH), 8.06 (2H, m, ArH), 7.99 – 7.87 (9H, m, ArH), 7.79 (2H, m, ArH), 7.50 (2H, d, *J* = 43.0 Hz,

CONH₂), 7.37 (1H, d, *J* = 8.6 Hz, ArH), 4.91 (1H, t, *J* = 8.1 Hz, CHNH), 4.24 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.09 (1H, d, *J* = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.02 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-d₆): δ = 171.0 (q, CONH₂), 168.2 (q, CONH), 167.5 (q, CONH), 166.8 (q, CO₂H), 165.4 (q, CONH), 161.7 (q, CONH), 154.5 (q, C-Ar), 152.3 (q, C-Ar), 151.5 (t, C-Ar), 146.3 (q, C-Ar_{Triazol}), 142.3 (t, C-Ar), 141.9 (q, C-Ar), 141.0 (q, C-Ar), 138.9 (q, C-Ar), 138.7 (q, C-Ar), 134.4 (q, C-Ar), 130.3 (2C, t, C-Ar), 129.3 (q, C-Ar), 128.2 (2C, t, C-Ar), 126.5 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.5 (t, C-Ar), 122.6 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.6 (2C, t, C-Ar), 119.9 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 118.4 (q, C-Ar), 116.7 (q, CN), 114.8 (t, C-Ar), 111.8 (q, C-Ar), 80.1 (t, CHOMe), 75.7 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.6 (t, CHNH), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₄H₃₉N₁₀O₁₀ [M + H]⁺: 867.2851; found 867.2857.

4-(4-(4-(4-((2S,3R)-4-Amino-2-(4-(4-cyano-3-fluorobenzamido)benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1H-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxybenzamido)-benzoic acid (49): Following the general procedure V phenol **S22** (22.4 mg, 23.8 μmol, 1.0 eq) was stirred for 2 h. Acid **49** was obtained as a beige amorphous solid (21.0 mg, 23.8 μmol, quant.). [*α*]_D²⁴ = +39.5° (*c* 1.3, DMSO); ¹H-NMR (600 MHz, DMSO-d₆): δ = 12.8 (1H, br. s, CO₂H), 12.2 (1H, br. s, OH), 10.8 (1H, s, NH), 10.8 (1H, s, NH), 10.4 (1H, s, NH), 8.93 (1H, s, CH_{Triazol}), 8.45 (1H, d, *J* = 8.1 Hz, NHCH), 8.16 – 8.13 (1H, m, ArH), 8.09 – 8.07 (1H, m, ArH), 8.00 – 7.96 (4H, m, ArH), 7.93 – 7.87 (8H, m, ArH), 7.79 (2H, m, ArH), 7.51 (2H, d, *J* = 47.9 Hz, CONH₂), 7.37 (1H, d, *J* = 8.6 Hz, ArH), 4.92 (1H, t, *J* = 8.1 Hz, CHNH), 4.25 (1H, hept, *J* = 6.1 Hz, CHMe₂), 4.09 (1H, d, *J* = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH₃), 1.03 (6H, d, *J* = 6.1 Hz, CH(CH₃)₂) ppm; ¹³C-NMR (125 MHz, DMSO-d₆): δ = 171.0 (q, CONH₂), 168.2 (q, CONH), 167.5 (q, CONH), 166.9 (q, CO₂H), 165.4 (q, CONH), 163.2 (q, CONH), 162.2 (d, *J* = 256.3 Hz, C-F), 154.5 (q, C-Ar), 146.3 (q, C-Ar_{Triazol}), 141.9 (q, C-Ar), 141.5 (d, *J* = 6.1 Hz, CCONH), 138.9 (q, C-Ar), 138.7 (q, C-Ar), 134.4 (d, *J* = 7.0 Hz, CHCCN), 130.7 (q, C-Ar), 130.3 (2C, t, C-Ar), 129.2 (q, C-Ar), 128.8 (q, C-Ar), 128.3 (2C, t, C-Ar), 126.5 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 124.7 (d, *J* = 3.4 Hz, CHCHCCONH), 123.5 (t, C-Ar), 122.6 (t, C-Ar_{Triazol}), 120.6 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.4 (q, CN), 115.8 (d, *J* = 21.3 Hz, CHCF), 114.8 (t, C-Ar), 113.6 (q, C-Ar), 102.9 (d, *J* = 15.3 Hz, CCN), 80.1 (t, CHOMe), 75.7 (t, CH(CH₃)₂), 57.7 (p, OCH₃), 55.7 (t, CHNH), 21.8 (2C, p, CH(CH₃)₂) ppm; HRMS (ESI): *m/z* calc. for C₄₅H₃₉N₉O₁₀F [M + H]⁺: 884.2804; found 884.2808.

4-(4-(4-(4-((2S,3R)-4-Amino-2-(4-(isonicotinamido)benzamido)-3-methoxy-4-oxobutanamido)phenyl)-1H-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxybenzamido)-benzoic acid (50): Following the general procedure V phenol **S23** (16.5 mg, 18.4 μmol, 1.0 eq) was stirred for 4 h. Acid **50** was obtained as a yellow amorphous solid (13.7 mg, 16.3 μmol, 89%). [*α*]_D²⁴ = +22.6° (*c* 1.4,

DMSO); $^1\text{H-NMR}$ (500 MHz, DMSO- d_6): δ = 12.2 (1H, br. s, OH), 10.8 (1H, s, NH), 10.8 (1H, s, NH), 10.4 (1H, s, NH), 8.93 (1H, s, $\text{CH}_{\text{Triazol}}$), 8.85 (2H, m, ArH), 8.44 (1H, d, J = 8.0 Hz, NHCH), 8.13 – 7.87 (13H, m, ArH), 7.79 (2H, m, ArH), 7.50 (2H, d, J = 31.9 Hz, CONH_2), 7.37 (1H, d, J = 8.6 Hz, ArH), 4.92 (1H, t, J = 8.0 Hz, CHNH), 4.25 (1H, hept, J = 6.1 Hz, CHMe_2), 4.09 (1H, d, J = 8.0 Hz, CHOMe), 3.32 (3H, s, OCH_3), 1.03 (6H, d, J = 6.1 Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (125 MHz, DMSO- d_6): δ = 171.0 (q, CONH_2), 168.2 (q, CONH), 167.5 (q, CONH), 166.9 (q, CO_2H), 165.4 (q, CONH), 164.1 (q, CONH), 154.5 (q, C-Ar), 149.8 (2C, t, C-Ar), 146.3 (q, C-Ar $_{\text{Triazol}}$), 141.9 (q, C-Ar), 141.5 (q, C-Ar), 138.9 (q, C-Ar), 138.7 (q, C-Ar), 134.4 (q, C-Ar), 130.3 (2C, t, C-Ar), 129.2 (q, C-Ar), 128.3 (2C, t, C-Ar), 126.5 (q, C-Ar), 125.9 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.5 (t, C-Ar), 122.6 (t, C-Ar $_{\text{Triazol}}$), 122.0 (2C, t, C-Ar), 120.6 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.7 (2C, t, C-Ar), 118.4 (q, C-Ar), 114.8 (t, C-Ar), 80.1 (t, CHOMe), 75.7 (t, $\text{CH}(\text{CH}_3)_2$), 57.7 (p, OCH_3), 55.7 (t, CHNH), 21.8 (2C, p, $\text{CH}(\text{CH}_3)_2$) ppm; HRMS (ESI): m/z calc. for $\text{C}_{43}\text{H}_{40}\text{N}_9\text{O}_{10}$ $[\text{M} + \text{H}]^+$: 842.2898; found 842.2903.

4-(4-(4-(4-((2S,3R)-4-Amino-2-(4-(6-cyanonicotinamido)benzamido)-3-methoxy-4-oxo-butanamido)phenyl)-1H-1,2,3-triazol-1-yl)-2-hydroxy-3-iso-propoxybenzamido)benzoic acid (51): Following the general procedure V phenol **S24** (24.4 mg, 26.5 μmol , 1.0 eq) was stirred for 5 h. Acid **51** was obtained as a beige amorphous solid (15.6 mg, 18.0 μmol , 68%). $[\alpha]_D^{22} = +25.1^\circ$ (c 1.5, DMSO); $^1\text{H-NMR}$ (600 MHz, DMSO- d_6): δ = 12.8 (1H, br. s, CO_2H), 12.2 (1H, br. s, OH), 10.9 (1H, br. s, NH), 10.8 (1H, s, NH), 10.4 (1H, s, NH), 9.24 – 9.23 (1H, m, ArH), 8.93 (1H, s, $\text{CH}_{\text{Triazol}}$), 8.55 – 8.53 (1H, m, ArH), 8.45 (1H, d, J = 8.1 Hz, NHCH), 8.26 – 8.25 (1H, m, ArH), 8.00 – 7.87 (11H, m, ArH), 7.79 (2H, m, ArH), 7.50 (2H, d, J = 46.3 Hz, CONH_2), 7.37 (1H, d, J = 8.6 Hz, ArH), 4.92 (1H, t, J = 8.1 Hz, CHNH), 4.25 (1H, hept, J = 6.0 Hz, CHMe_2), 4.09 (1H, d, J = 8.1 Hz, CHOMe), 3.32 (3H, s, OCH_3), 1.03 (6H, d, J = 6.0 Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (125 MHz, DMSO- d_6): δ = 171.0 (q, CONH_2), 168.2 (q, CONH), 167.5 (q, CONH), 166.8 (q, CO_2H), 165.3 (q, CONH), 163.0 (q, CONH), 154.5 (q, C-Ar), 150.2 (t, C-Ar), 146.3 (q, C-Ar $_{\text{Triazol}}$), 141.9 (q, C-Ar), 141.5 (q, C-Ar), 138.9 (q, C-Ar), 138.7 (q, C-Ar), 137.3 (t, C-Ar), 134.5 (q, C-Ar), 134.4 (q, C-Ar), 133.4 (q, C-Ar), 130.3 (2C, t, C-Ar), 129.2 (q, C-Ar), 128.8 (t, C-Ar), 128.3 (2C, t, C-Ar), 126.5 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.5 (t, C-Ar), 122.6 (t, C-Ar $_{\text{Triazol}}$), 120.6 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.6 (2C, t, C-Ar), 118.4 (q, C-Ar), 117.1 (q, CN), 114.8 (t, C-Ar), 80.0 (t, CHOMe), 75.7 (t, $\text{CH}(\text{CH}_3)_2$), 57.7 (p, OCH_3), 55.6 (t, CHNH), 21.8 (2C, p, $\text{CH}(\text{CH}_3)_2$) ppm; HRMS (ESI): m/z calc. for $\text{C}_{44}\text{H}_{39}\text{N}_{10}\text{O}_{10}$ $[\text{M} + \text{H}]^+$: 867.2851; found 867.2858.

4-(4-(4-(4-((2S,3R)-4-Amino-2-(4-(3-(4-cyanophenyl)-propanamido)-benz-amido)-3-methoxy-4-oxobutanamido)phenyl)-1H-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxy-benzamido)benzoic acid (52): Following the general procedure V phenol **S25** (19.8 mg, 20.9 μmol , 1.0 eq) was stirred for 4.5 h.

Acid **52** was obtained as a grey amorphous solid (18.6 mg, 20.9 μmol , quant.). $[\alpha]_D^{24} = +20.8^\circ$ (*c* 1.9, DMSO); $^1\text{H-NMR}$ (400 MHz, DMSO- d_6): $\delta = 12.8$ (1H, br. s, CO_2H), 12.2 (1H, br. s, *OH*), 10.8 (1H, s, *NH*), 10.3 (1H, s, *NH*), 10.2 (1H, s, *NH*), 8.92 (1H, s, $\text{CH}_{\text{Triazol}}$), 8.35 (1H, d, $J = 8.1$ Hz, *NHCH*), 8.00 – 7.95 (3H, m, *ArH*), 7.93 – 7.87 (4H, m, *ArH*), 7.82 – 7.75 (6H, m, *ArH*), 7.67 (2H, m, *ArH*), 7.53 – 7.45 (4H, m, *ArH*, CONH_2), 7.37 (1H, d, $J = 8.6$ Hz, *ArH*), 4.90 (1H, t, $J = 8.1$ Hz, CHNH), 4.25 (1H, hept, $J = 6.1$ Hz, CHMe_2), 4.07 (1H, d, $J = 8.1$ Hz, CHOMe), 3.31 (3H, s, OCH_3), 3.01 (2H, t, $J = 7.5$ Hz, ArCH_2CH_2), 2.71 (2H, t, $J = 7.5$ Hz, ArCH_2CH_2), 1.02 (6H, d, $J = 6.1$ Hz, $\text{CH}(\text{CH}_3)_2$) ppm; $^{13}\text{C-NMR}$ (100 MHz, DMSO- d_6): $\delta = 171.0$ (q, CONH_2), 170.4 (q, CONH), 168.2 (q, CONH), 167.5 (q, CONH), 166.8 (q, CO_2H), 165.4 (q, CONH), 154.5 (q, C-Ar), 147.3 (q, C-Ar), 146.3 (q, C- $\text{Ar}_{\text{Triazol}}$), 142.1 (q, C-Ar), 141.9 (q, C-Ar), 138.9 (q, C-Ar), 138.7 (q, C-Ar), 134.4 (q, C-Ar), 132.2 (2C, t, C-Ar), 130.3 (2C, t, C-Ar), 129.5 (2C, t, C-Ar), 128.3 (2C, t, C-Ar), 128.0 (q, C-Ar), 126.5 (q, C-Ar), 125.8 (2C, t, C-Ar), 125.4 (q, C-Ar), 123.5 (t, C-Ar), 122.6 (t, C- $\text{Ar}_{\text{Triazol}}$), 120.6 (2C, t, C-Ar), 119.8 (2C, t, C-Ar), 119.0 (q, C-Ar), 118.4 (q, CN), 118.2 (2C, t, C-Ar), 114.8 (t, C-Ar), 108.9 (q, C-Ar), 80.1 (t, CHOMe), 75.7 (t, $\text{CH}(\text{CH}_3)_2$), 57.7 (p, OCH_3), 55.6 (t, CHNH), 37.1 (s, ArCH_2CH_2), 30.6 (s, ArCH_2CH_2), 21.8 (2C, p, $\text{CH}(\text{CH}_3)_2$) ppm; HRMS (ESI): m/z calc. for $\text{C}_{47}\text{H}_{43}\text{N}_9\text{O}_{10}$ $[\text{M} + \text{H}]^+$: 916.3031; found 916.3029.

4. Copies of ^1H - and ^{13}C -NMR spectra





































































































