

Synthesis, Radiolabeling, in Vitro and in Vivo Characterization of Heterobivalent Peptidic Agents for bispecific EGFR and Integrin $\alpha_v\beta_3$ Targeting

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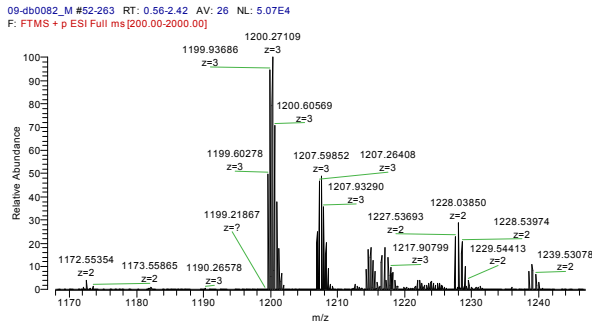


Figure S1: Mass spectrum of HBPL 1 (NODA-GA-PEG₃-GE11-PEG₃-c(RGDyK)) (1).

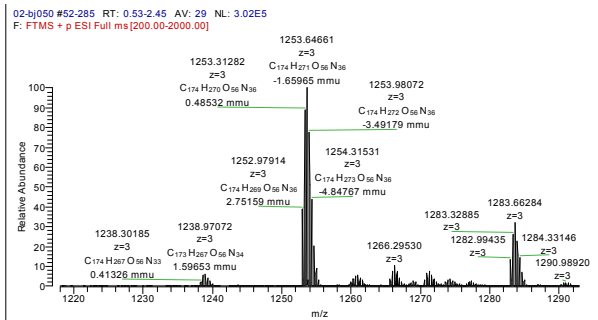
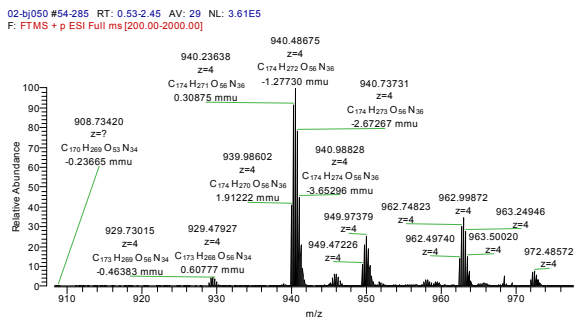


Figure S2: Mass spectrum of HBPL 2 (NODA-GA-PEG₅-GE11-PEG₅-c(RGDfK)) (2).

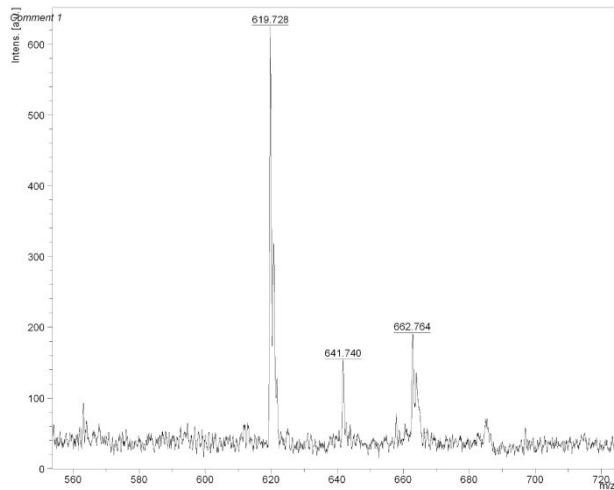


Figure S3: Mass spectrum of c(RGDyK) (4).

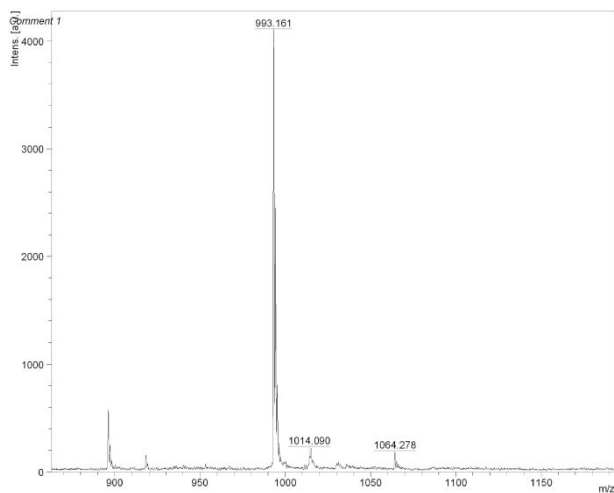


Figure S4: Mass spectrum of c(RGDyK)-PEG₃-NHS ester (5).

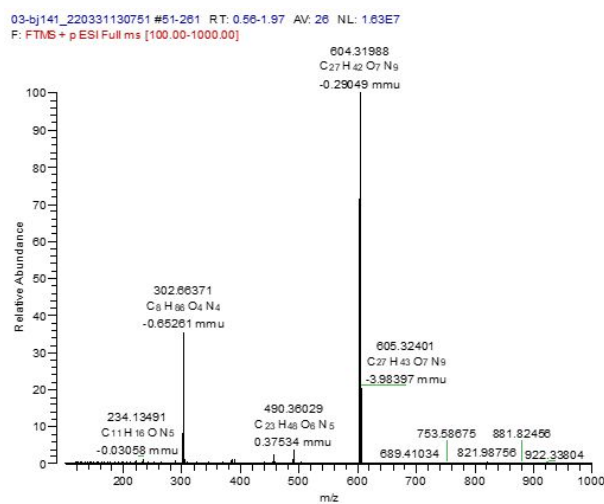


Figure S5: Mass spectrum of c(RGDfK) (6).

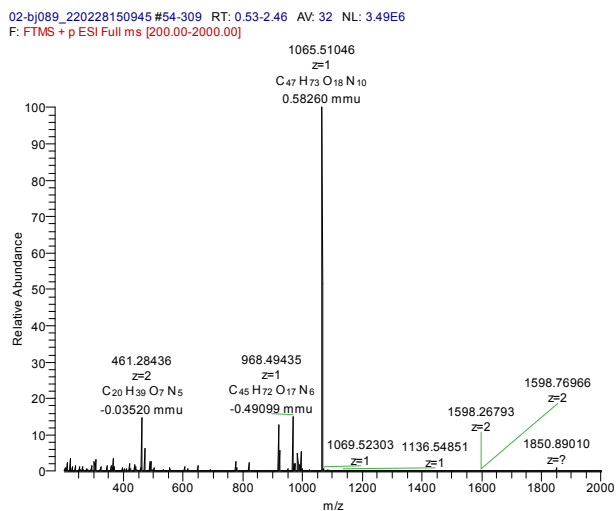


Figure S6: Mass spectrum of c(RGDfK)-PEG₅-NHS ester (7).

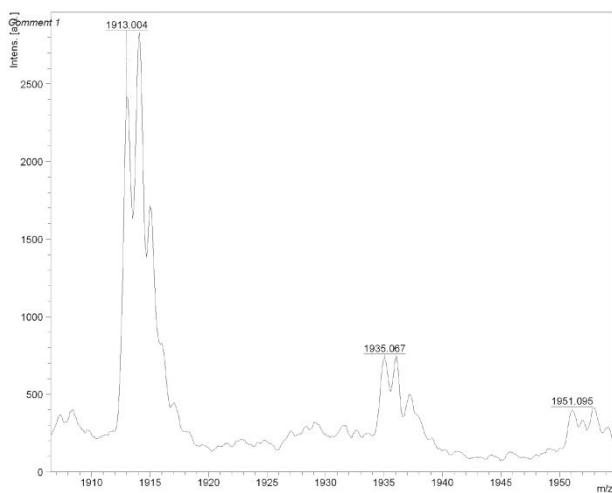


Figure S7: Mass spectrum of GE11-PEG₃-NHS ester (8).

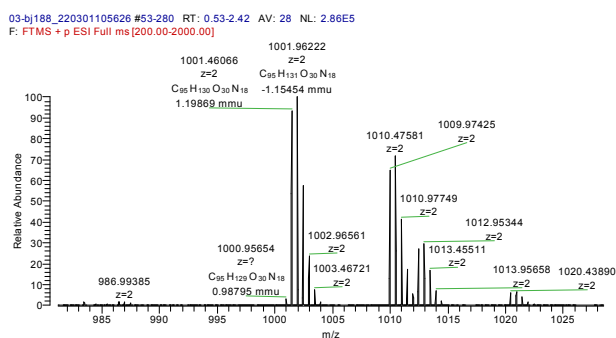


Figure S8: Mass spectrum of GE11-PEG₅-NHS ester (9).

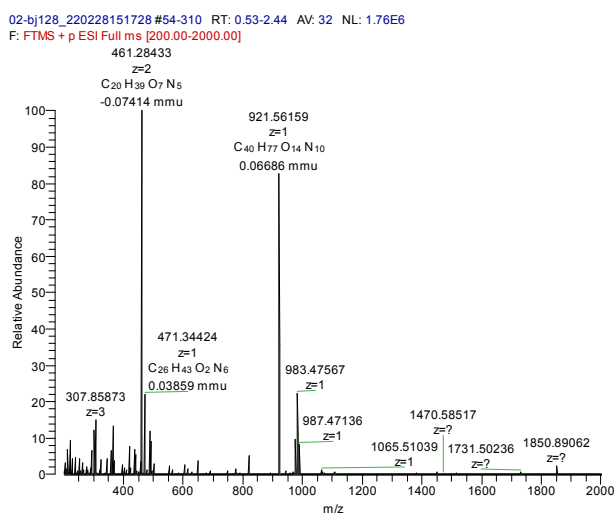


Figure S9: Mass spectrum of NODA-GA-bis-amino dendron (10).

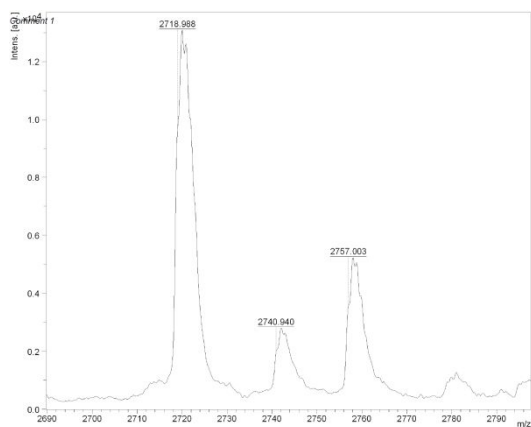


Figure S10: Mass spectrum of HBPL Intermediate 1 (NODA-GA-*mono*-amino-PEG₃-GE11 dendron) (**11**).

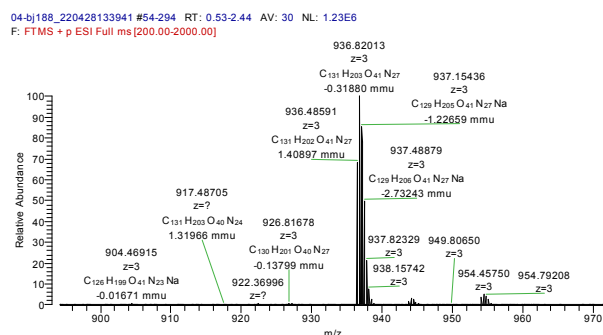


Figure S11: Mass spectrum of HBPL Intermediate 2 (NODA-GA-*mono*-amino-PEG₅-GE11 dendron) (**12**).

Table S1: *Ex vivo* biodistribution data (% ID/g) at 120 min p.i. of [⁶⁸Ga]Ga-**1** without blocking or with blocking of integrin $\alpha_v\beta_3$ or EGFR receptors.

Organ	[⁶⁸ Ga]Ga- 1	[⁶⁸ Ga]Ga- 1 + integrin $\alpha_v\beta_3$ blocking	[⁶⁸ Ga]Ga- 1 + EGFR blocking
small intestine	1.20 ± 0.13	0.23 ± 0.17	0.99 ± 0.56
large intestine	1.32 ± 0.33	0.42 ± 0.04	0.92 ± 0.54
stomach	1.23 ± 0.55	0.27 ± 0.13	0.96 ± 0.66
spleen	0.98 ± 0.22	0.13 ± 0.05	1.10 ± 0.55
pancreas	0.68 ± 0.17	0.30 ± 0.28	1.50 ± 1.23
liver	1.24 ± 0.15	0.19 ± 0.12	1.25 ± 1.04
kidneys	88.04 ± 28.51	74.33 ± 32.40	156.37 ± 65.46
blood	4.49 ± 2.17	1.38 ± 0.74	4.56 ± 4.04
heart	2.06 ± 0.82	0.29 ± 0.14	1.70 ± 1.17
lung	2.32 ± 1.77	0.48 ± 0.16	2.25 ± 1.91
brain	0.24 ± 0.18	0.06 ± 0.05	0.14 ± 0.08
tumor	2.79 ± 1.66	0.36 ± 0.20	2.47 ± 1.75
bone	0.84 ± 0.36	0.17 ± 0.11	0.70 ± 0.46
muscle	0.64 ± 0.15	0.09 ± 0.04	0.39 ± 0.29