Supplementary data

Utilizing Electrostatic Interactions to Facilitate F-18 Radiolabeling of Poly(amido)amine (PAMAM) Dendrimers

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Table of Contents
Figure S1. Analytical HPLC of 5
Figure S2. ¹H and ¹³C NMR spectra of 5
Figure S3. Analytical HPLC of 6
Figure S4. ¹H and ¹³C NMR spectra of 6
Figure S5. Analytical HPLC of 7
Figure S6. ¹H and ¹³C NMR spectra of 7
Figure S7. Analytical HPLC of 9
Figure S8. ¹H and ¹³C NMR spectra of 9
Figure S9. Analytical HPLC of 10
Figure S10. ¹H and ¹³C NMR spectra of 10
Figure S11. Semi-preparative HPLC chromatographs of [¹⁸F]4
Figure S12. Semi-preparative HPLC chromatographs of [¹⁸F]7
Figure S13. Semi-preparative HPLC chromatographs of [¹⁸F]10
Figure S14. Analytical HPLC of NHS-fluorescein (1)
Figure S15. Analytical HPLC of a conjugation reaction of PAMAM G6 with 4.6% equivalent of NHS-fluorescein (1), showing complete consumption of 1 at 8.5 min.
Figure S16. Analytical HPLC of a conjugation reaction of PAMAM G6 with 46% equivalent of NHS-fluorescein (1), showing complete consumption of 1 at 8.5 min
Figure S17. A typical radio-TLC of a conjugation reaction of PAMAM G6 with [¹⁸F]7
Figure S18. Radio-TLC of [¹⁸F]7
Figure S19. A typical radio-TLC of a conjugation reaction of PAMAM G6 with [¹⁸F]10
Figure S20. Radio-TLC of Sulfo-NHS [¹⁸F]10
Figure S21. A typical radio-TLC of a conjugation reaction of PAMAM G6 with [¹⁸F]4
Figure S22. Radio-TLC of [¹⁸F]4
Figure S23. Radio-TLC of [¹⁸F]5
Figure S24. Analytical HPLC of a conjugation reaction of PAMAM G6 (20 µg) with [¹⁸F]7
Figure S25. Analytical HPLC of ¹⁸F labeled PAMAM G6 with [¹⁸F]7 after purification by Sephadex G-25 column
Figure S1. Analytical HPLC of 5 (Agilent SB-C18 250×4.6 mm 5µm; gradient from 30% MeCN/70%water/0.1%TFA to 80% MeCN/20%water/0.1%TFA over 10 min; flow rate: 1.5 mL/min; UV: 254 nm)
Figure S2. $^1$H and $^{13}$C NMR spectra of 5
Figure S3. Analytical HPLC of 6 (Agilent SB-C18 250×4.6 mm 5µm; gradient from 30% MeCN/70%water/0.1%TFA to 80% MeCN/20%water/0.1%TFA over 10 min; flow rate: 1.5 mL/min; UV: 254 nm)
Figure S4. $^1$H and $^{13}$C NMR spectra of 6
Figure S5. Analytical HPLC of 7 (Agilent SB-C18 250×4.6 mm 5µm; gradient from 30% MeCN/70%water/0.1%TFA to 80% MeCN/20%water/0.1%TFA over 10 min; flow rate: 1.5 mL/min; UV: 254 nm)
Figure S6. $^1$H and $^{13}$C NMR spectra of 7
Figure S7. Analytical HPLC of 9 (Agilent SB-C18 250×4.6 mm 5µm; gradient from 30% MeCN/70%water/0.1%TFA to 80% MeCN/20%water/0.1%TFA over 10 min; flow rate: 1.5 mL/min; UV: 254 nm)
Figure S8. $^1$H and $^{13}$C NMR spectra of 9
Figure S9. Analytical HPLC of 10 (Agilent SB-C18 250×4.6 mm 5µm; gradient from 30% MeCN/70%water/0.1%TFA to 80% MeCN/20%water/0.1%TFA over 10 min; flow rate: 1.5 mL/min; UV: 254 nm)
Figure S10. $^1$H and $^{13}$C NMR spectra of 10
HPLC condition:

Agilent SB-C18 250×9.4 mm 5µ

[^18F]4: Mobile phase A: 30% MeCN/70% water/0.1% TFA; B: 80% MeCN/20% water/0.1% TFA. From 100% A to 90% A and 10% B over 30 min; \( T_R = 14 \) min.

[^18F]7: 17% MeCN/83% water/0.1% TFA; \( T_R = 15.5 \) min.

[^18F]10: 30% MeCN/70% water/0.1% TFA; \( T_R = 16 \) min.

Figure S11. Semi-preparative HPLC chromatographs of [^18F]4 (Blue: UV; Red: Radioactivity)
Figure S12. Semi-preparative HPLC chromatographs of $[^{18}\text{F}]\text{7}$ (Blue: UV; Red: Radioactivity)

Figure S13. Semi-preparative HPLC chromatographs of $[^{18}\text{F}]\text{10}$ (Blue: UV; Red: Radioactivity)
Figure S14. Analytical HPLC of NHS-fluorescein (1)

HPLC: Column Agilent SB-C18 250×4.6 mm 5µ
Mobile phase A: 10% MeCN/90% water/0.1% TFA;
B: 80% MeCN/20% water/0.1% TFA.
From 100% A to 100% B over 12 min, flow rate: 1.5 mL/min

Figure S15. Analytical HPLC of a conjugation reaction of PAMAM G6 with 4.6% equivalent of NHS-fluorescein (1), showing complete consumption of 1 at 8.5 min.
Figure S16. Analytical HPLC of a conjugation reaction of PAMAM G6 with 46% equivalent of NHS-fluorescein (1), showing complete consumption of 1 at 8.5 min

Figure S17. A typical radio-TLC of a conjugation reaction of PAMAM G6 with $^{[18F]}$7 (Silica/Methanol)

Figure S18. Radio-TLC of $^{[18F]}$7 (Silica/Methanol)
Figure S19. A typical radio-TLC of a conjugation reaction of PAMAM G6 with $^{18}$F$^{10}$ (Silica/Methanol)

Figure S20. Radio-TLC of Sulfo-NHS $^{18}$F$^{10}$ (Silica/Methanol)

Figure S21. A typical radio-TLC of a conjugation reaction of PAMAM G6 with $^{18}$F$^{4}$ (Silica/Methanol)
Figure S22. Radio-TLC of $[^{18}\text{F}]4$ (Silica/Methanol)

Figure S23. Radio-TLC of $[^{18}\text{F}]5$ (Silica/Methanol)
HPLC: Column Agilent SB-C18 250×4.6 mm 5µ
Mobile phase A: 10% MeCN/90% water/0.1% TFA;
    B: 80% MeCN/20% water/0.1% TFA.
From 100% A to 100% B over 20 min; flow rate: 1.5 mL/min; UV: 224 nm.

Figure S24. Analytical HPLC of a conjugation reaction of PAMAM G6 (20 µg) with $^{18}$F$^7$ (Blue: UV; Red: Radioactivity).

Figure S25. Analytical HPLC of $^{18}$F labeled PAMAM G6 with $^{18}$F$^7$ after purification by Sephadex G-25 column (Blue: UV; Red: Radioactivity).