

Supplementary material

Development of Near-infrared Fluorescent Probes with large Stokes shift for Non-Invasive Imaging of Tumor Hypoxia

Kensuke Okuda,^{1†}, Bahaa G. M. Youssif,^{1,2}, Ryosuke Sakai,¹ Takahiro Ueno,¹ Takayuki Sakai,¹ Tetsuya Kadonosono,³ Yasuyuki Okabe,¹ Ola I. Abdel Razeq Salem,² Alaa M. Hayallah,⁴ Mostafa A. Hussein,² Shinae Kizaka-Kondoh,³ and Hideko Nagasawa,^{1*}

¹ Laboratory of Pharmaceutical and Medicinal Chemistry, Gifu Pharmaceutical University, 1-25-4 Daigaku-nishi, Gifu 501-1196 Japan; E-mail: hnagasawa@gifu-pu.ac.jp

² Pharmaceutical Organic Chemistry Department, Faculty of Pharmacy, Assiut University, Assiut 71526 Egypt.

³ School of Life Science & Technology, Tokyo Institute of Technology, 4259 Nagatuta-cho, Midori-ku, Yokohama 226-8503 Japan.

⁴ Pharmaceutical Chemistry Department, Faculty of Pharmacy, Deraya University, Minia, Egypt.

† Present affiliation: Laboratory of Bioorganic & Natural Products Chemistry, Kobe Pharmaceutical University, 4-19-1 Motoyama-kita, Higashinada, Kobe 658-8558 Japan.

Contents:

Figure S1. LC spectra of GPU-172 -----	S2
Figure S2. LC spectra of GPU-316 -----	S2
Figure S3. LC spectra of GPU-210 -----	S2
Figure S4. LC spectra of GPU-297 -----	S3
Figure S5. LC spectra of GPU-309 -----	S3
Figure S6. LC spectra of GPU-298 -----	S3
Figure S7. LC spectra of GPU-310 -----	S4
Figure S8. LC spectra of GPU-198 -----	S4
Figure S9. LC spectra of GPU-212 -----	S4

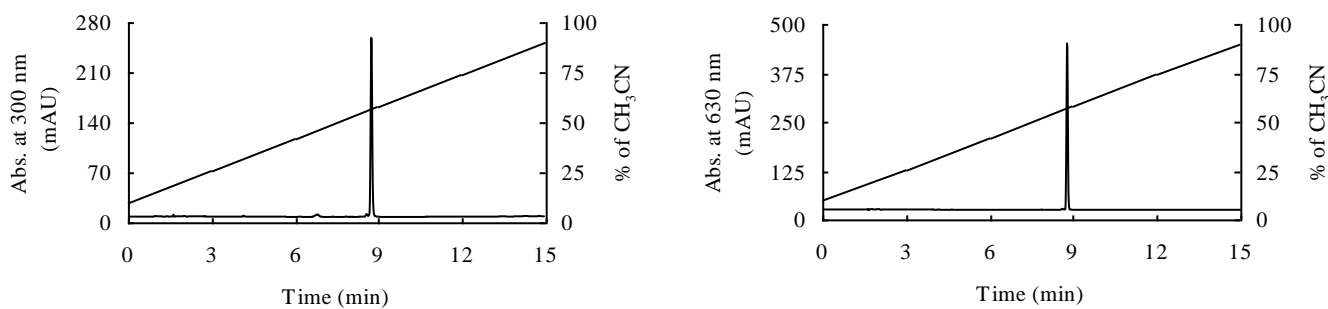


Figure S1. LC spectra of GPU-172

Gradient system was as follows: eluent A (CH_3CN cont. 0.05% HCO_2H , 10% (0 min) to 90% (15 min)) and eluent B (0.05% HCO_2H) at flow rate 0.5 mL/min

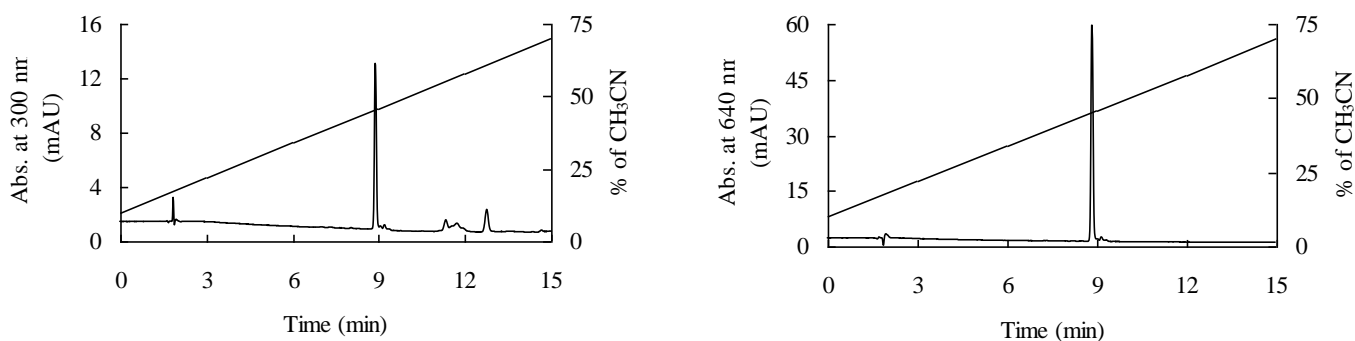


Figure S2. LC spectra of GPU-316

Gradient system was as follows: eluent A (CH_3CN , 10% (0 min) to 70% (15 min)) and eluent B (10 mM ammonium formate buffer (pH 7.3)) at flow rate 0.5 mL/min

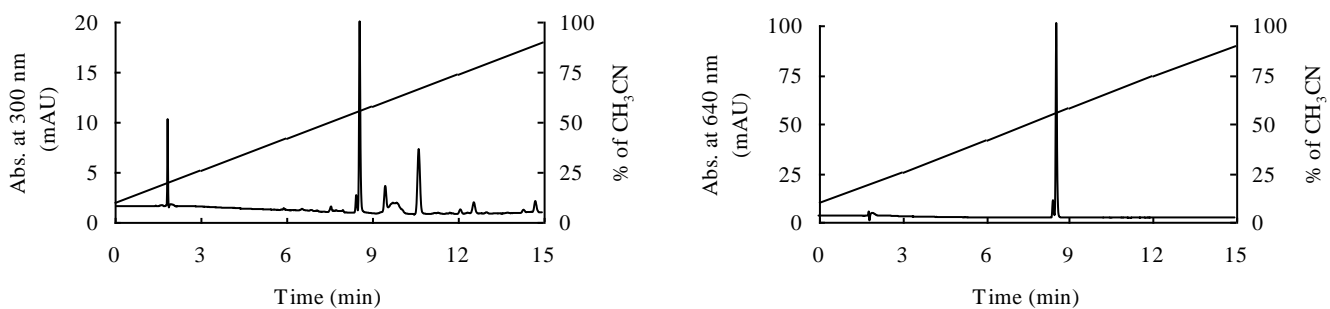


Figure S3. LC spectra of GPU-210

Gradient system was as follows: eluent A (CH_3CN , 10% (0 min) to 90% (15 min)) and eluent B (10 mM ammonium formate buffer (pH 7.3)) at flow rate 0.5 mL/min

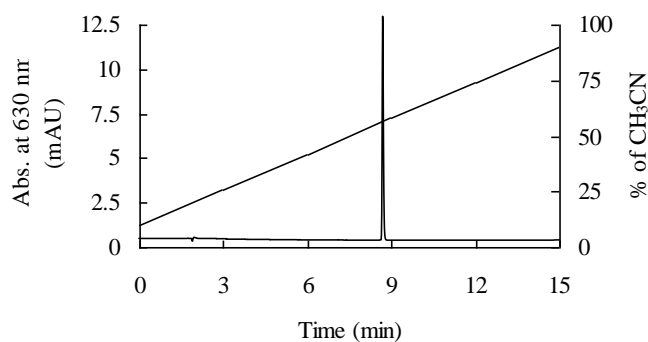
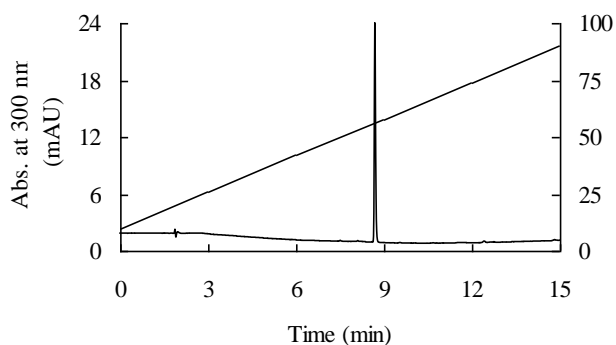


Figure S4. LC spectra of GPU-297

Gradient system was as follows: eluent A (CH_3CN , 10% (0 min) to 90% (15 min)) and eluent B (10 mM ammonium formate buffer (pH 7.3)) at flow rate 1.0 mL/min

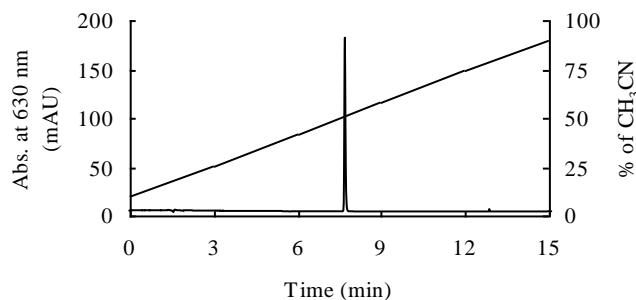
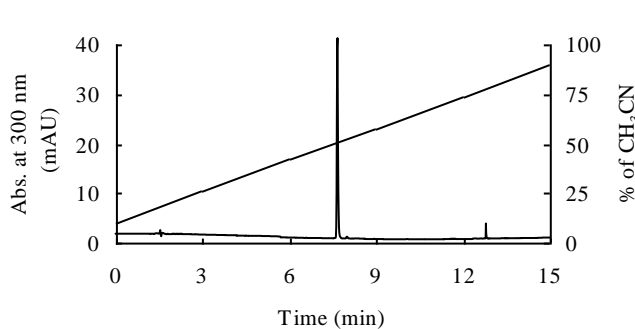


Figure S5. LC spectra of GPU-309

Gradient system was as follows: eluent A (CH_3CN , 10% (0 min) to 90% (15 min)) and eluent B (10 mM ammonium formate buffer (pH 7.3)) at flow rate 1.0 mL/min

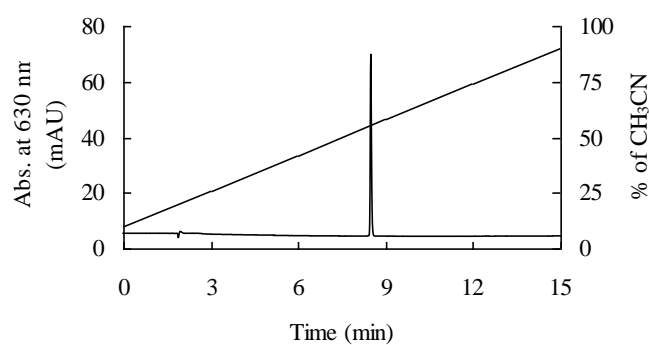
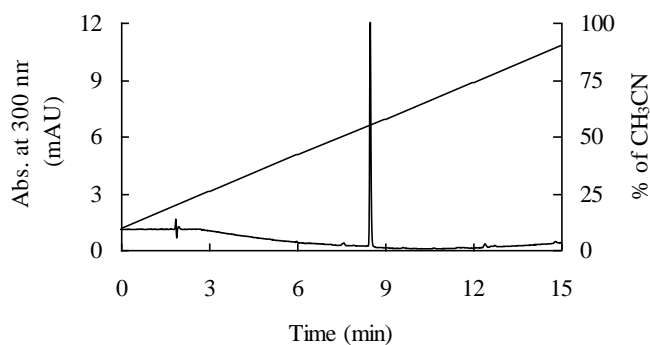


Figure S6. LC spectra of GPU-298

Gradient system was as follows: eluent A (CH_3CN , 10% (0 min) to 90% (15 min)) and eluent B (10 mM ammonium formate buffer (pH 7.3)) at flow rate 1.0 mL/min

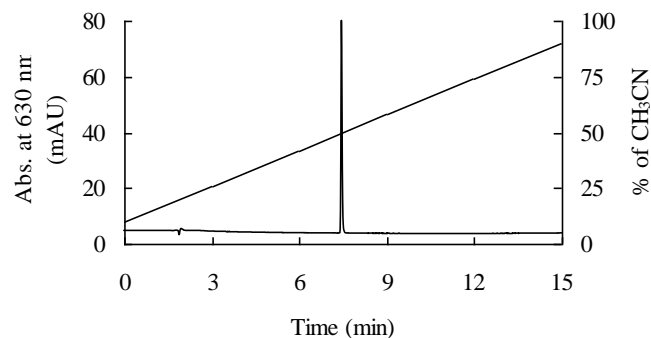
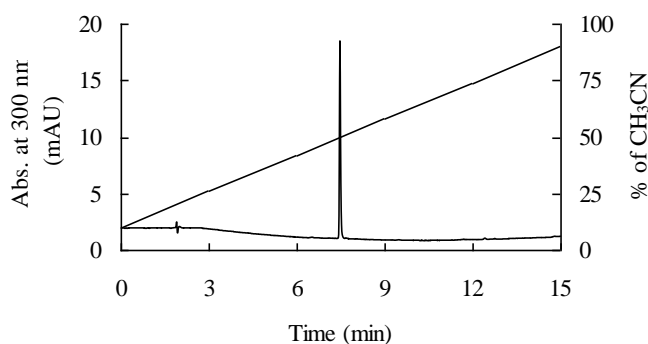


Figure S7. LC spectra of GPU-310

Gradient system was as follows: eluent A (CH_3CN , 10% (0 min) to 90% (15 min)) and eluent B (10 mM ammonium formate buffer (pH 7.3)) at flow rate 1.0 mL/min

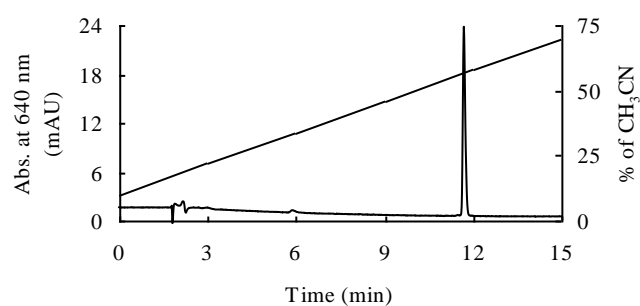
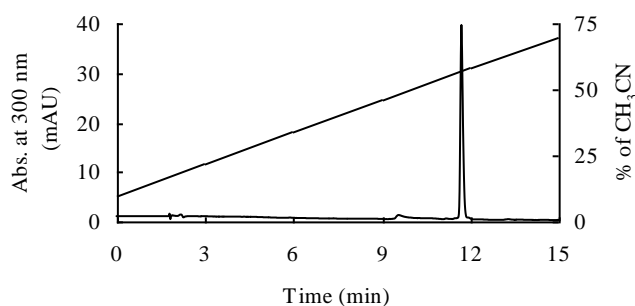


Figure S8. LC spectra of GPU-198

Gradient system was as follows: eluent A (CH_3CN cont. 0.05% HCO_2H , 10% (0 min) to 70% (15 min)) and eluent B (0.05% HCO_2H) at flow rate 0.5 mL/min

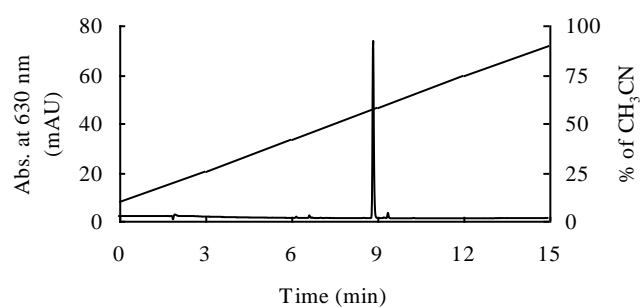
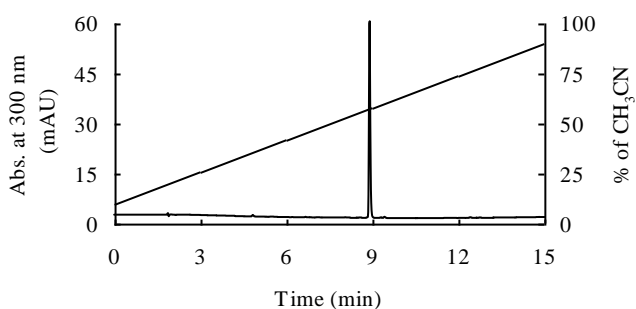


Figure S9. LC spectra of GPU-212

Gradient system was as follows: eluent A (CH_3CN , 10% (0 min) to 90% (15 min)) and eluent B (10 mM ammonium formate buffer (pH 7.3)) at flow rate 1.0 mL/min