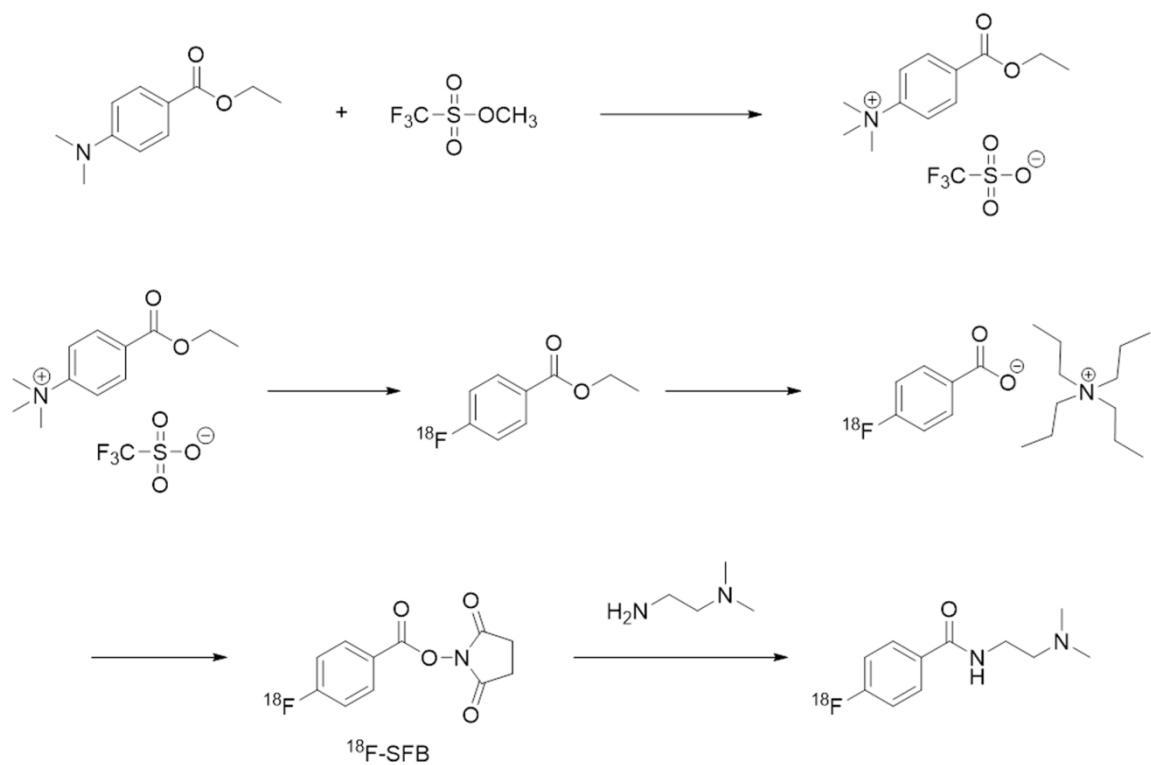
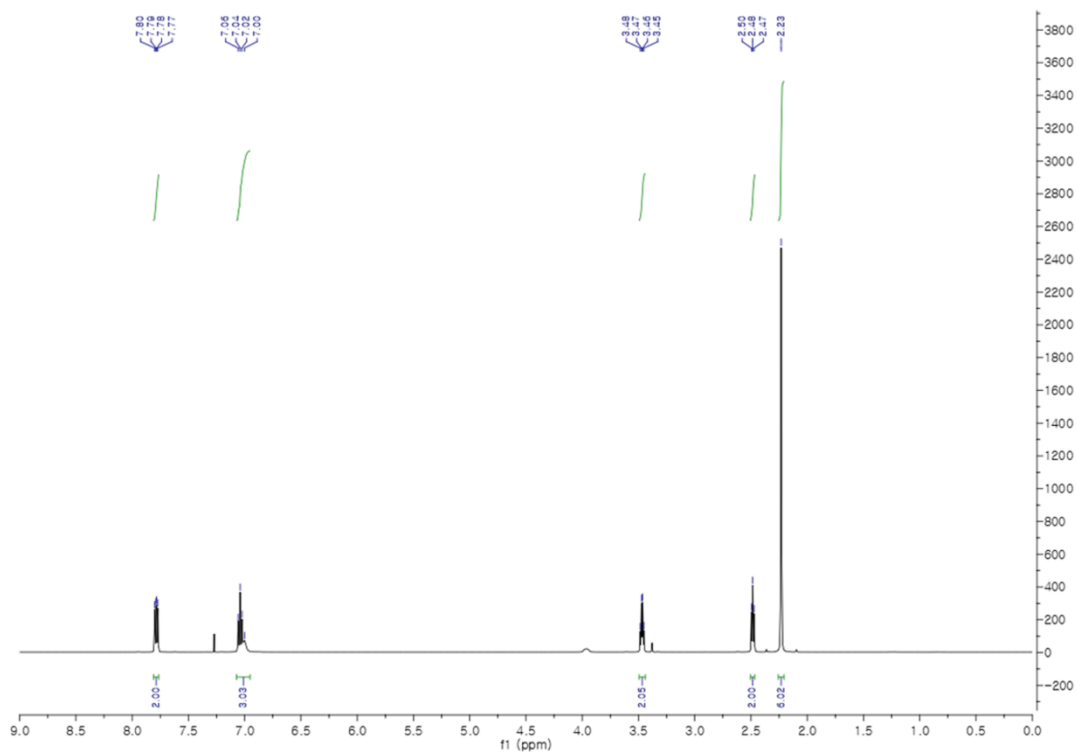


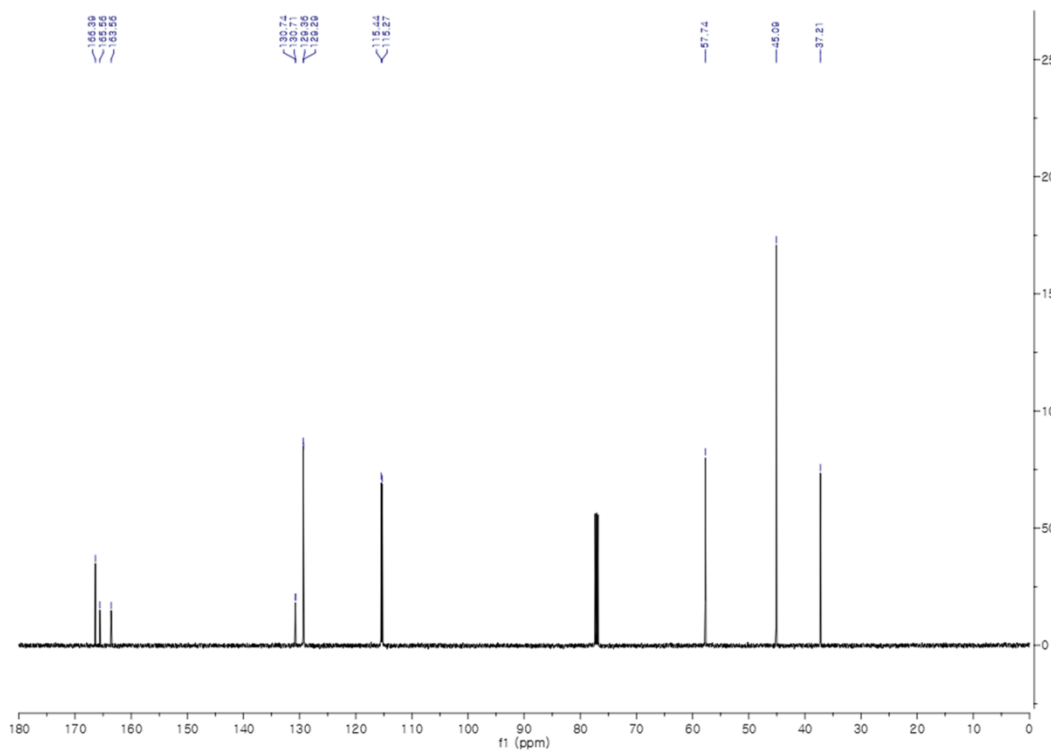
Supplemental Figure 1. Synthesis scheme for ^{19}F -DMFB.



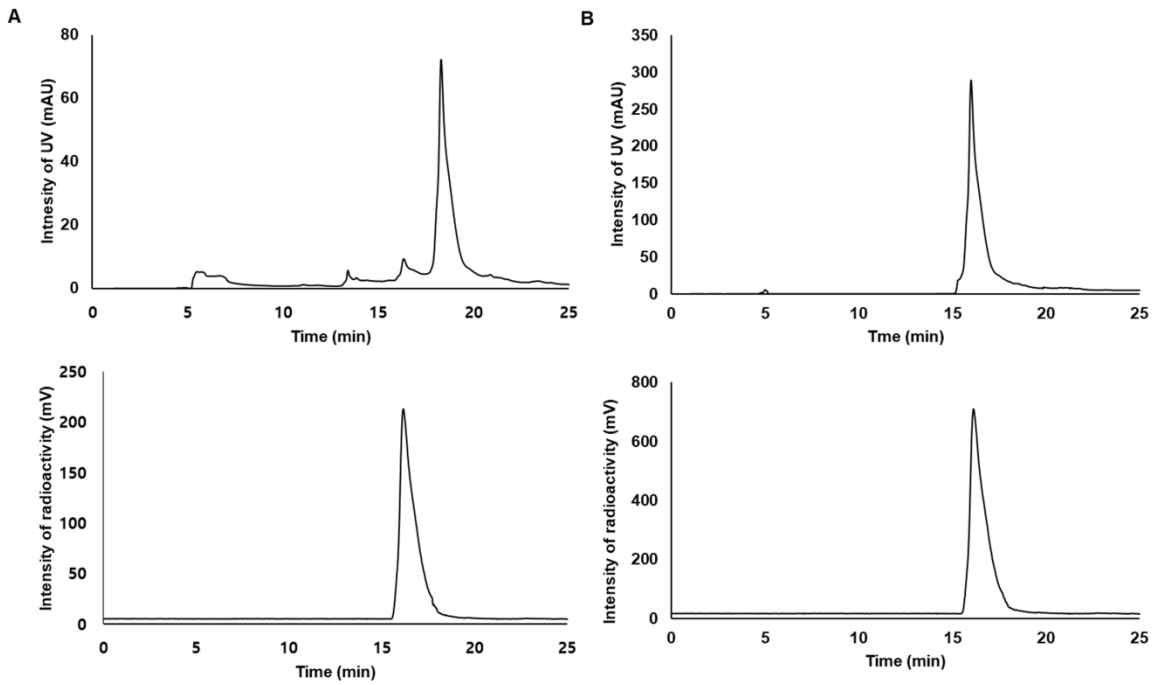
Supplemental Figure 2A. Synthesis scheme for ^{18}F -DMFB.



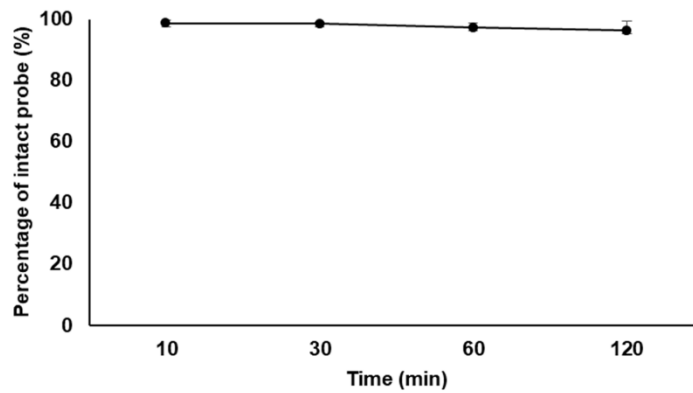
Supplemental Figure 2B. ¹H NMR spectrum of ¹⁹F-DMFB.



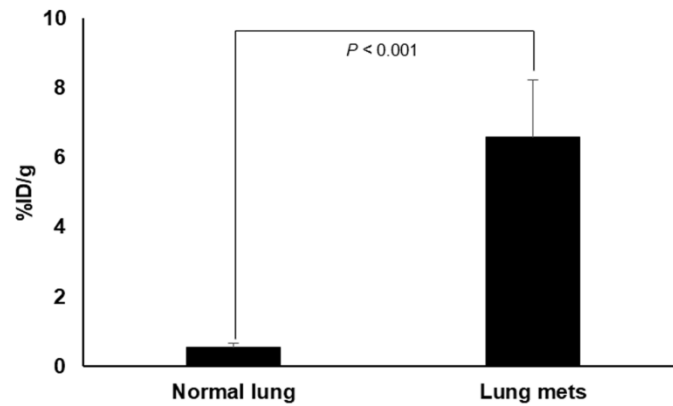
Supplemental Figure 2C. ^{13}C NMR spectrum of ^{19}F -DMFB.



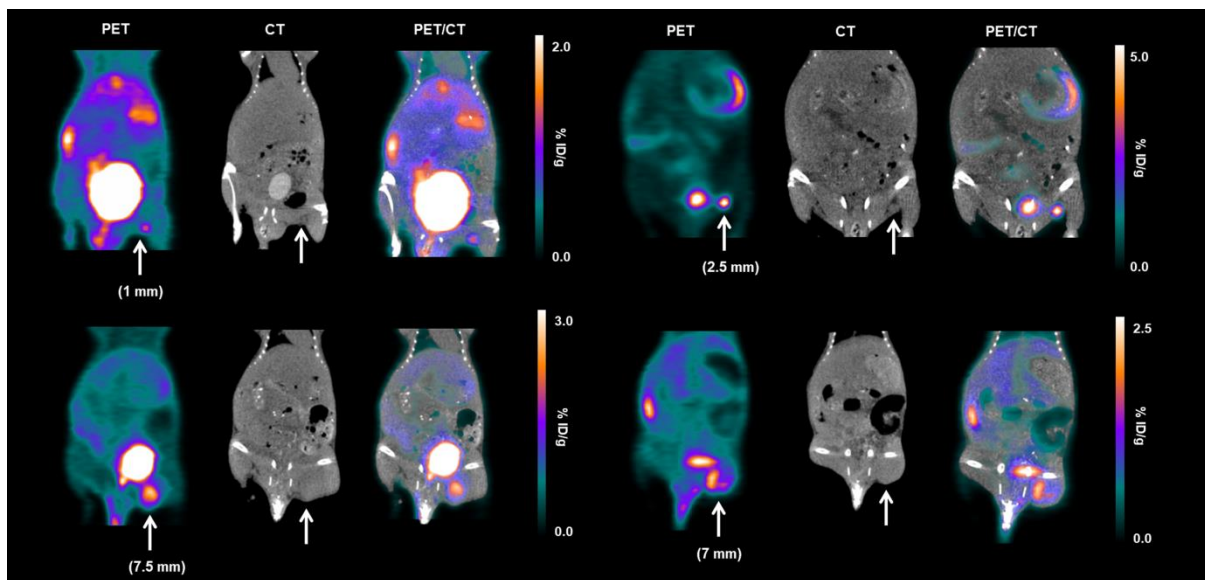
Supplemental Figure 3. (A) Purification of ^{18}F -DMFB using semi-preparative HPLC. (B) HPLC chromatogram of ^{18}F -DMFB, with its non-radioactive compound.



Supplemental Figure 4. ^{18}F -DMFB stability in human serum after incubation at 37 °C for 10, 30, 60 and 120 min.



Supplemental Figure 5. Uptake value in normal lung and lung metastasis at 60 min after ^{18}F -DMFB injection.



Supplemental Figure 6. MicroPET, CT and PET/CT fusion images of a B16F10 LN metastasis model at 60 min post-injection of ^{18}F -DMFB (white arrow: LN metastasis region).

Supplemental Table 1. Tumor-to-organ ratios of ^{18}F -DMFB in a B16F10 tumor-bearing Foxn1nu mouse model at 10, 30, 60 and 120 min after *i.v.* injection (n = 3 / each time point)

	10 min	30 min	60 min	120 min
Tumor-to-lung	0.85 ± 0.41	2.37 ± 0.63	7.13 ± 2.44	31.81 ± 5.87
Tumor-to-liver	0.83 ± 0.24	1.90 ± 0.66	5.54 ± 1.27	23.73 ± 2.24
Tumor-to-intestine	0.75 ± 0.22	1.39 ± 0.47	4.90 ± 0.22	20.76 ± 3.67
Tumor-to-bone	1.82 ± 0.45	4.47 ± 0.93	13.73 ± 5.87	
Tumor-to-brain	1.40 ± 0.55	3.83 ± 1.62	12.20 ± 5.00	43.40 ± 13.43
Tumor-to-skin	1.28 ± 0.60	2.79 ± 0.91	6.54 ± 1.02	28.99 ± 2.05