Synthesis and PET imaging biodistribution studies of a new radiolabeled iododiflunisal, a transthyretin tetramer stabilizer, candidate drug for Alzheimer's disease

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^{1}H, ^{13}C, and ^{19}F NMR Data:

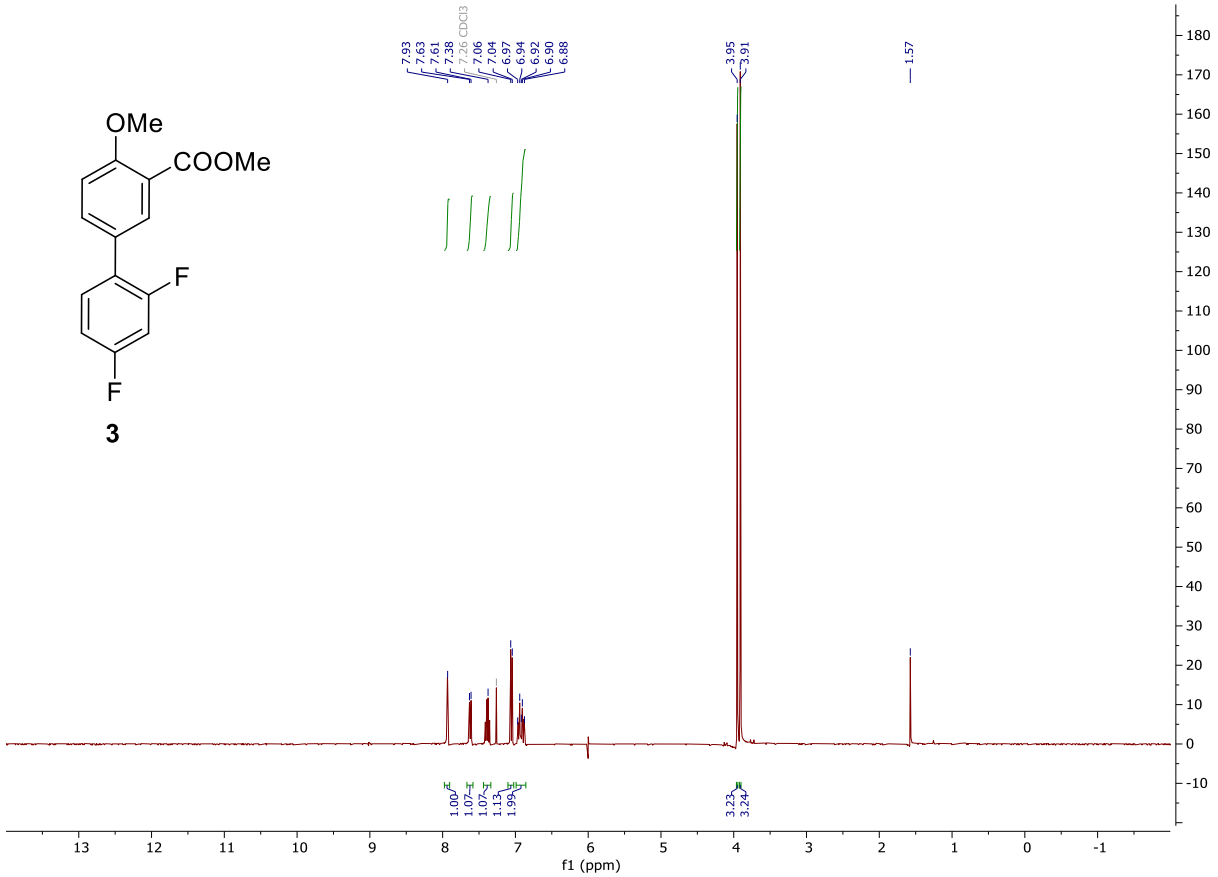

Figure S1: ^{1}H NMR of compound **3** at 400 MHz NMR spectrometer.

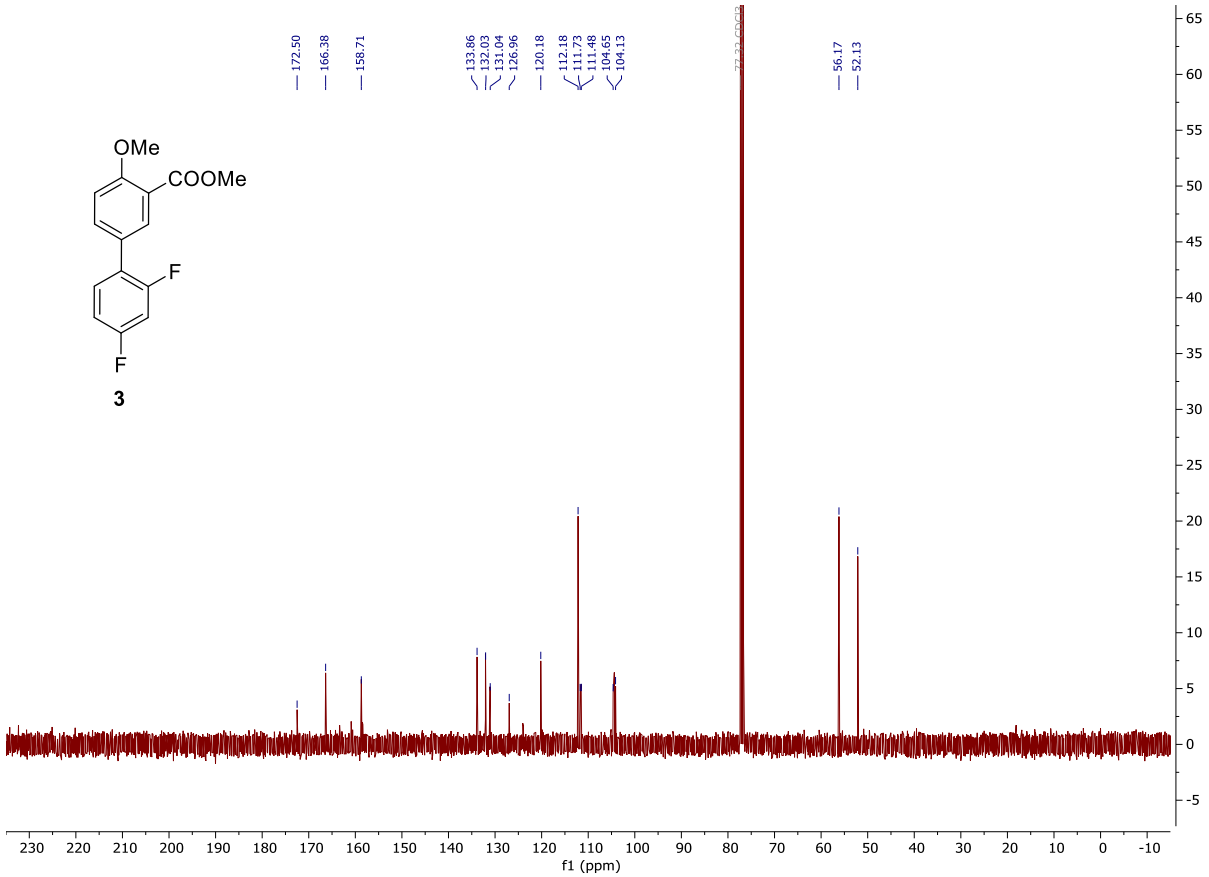

Figure S2: ^{13}C NMR of compound **3** at 100 MHz NMR spectrometer.

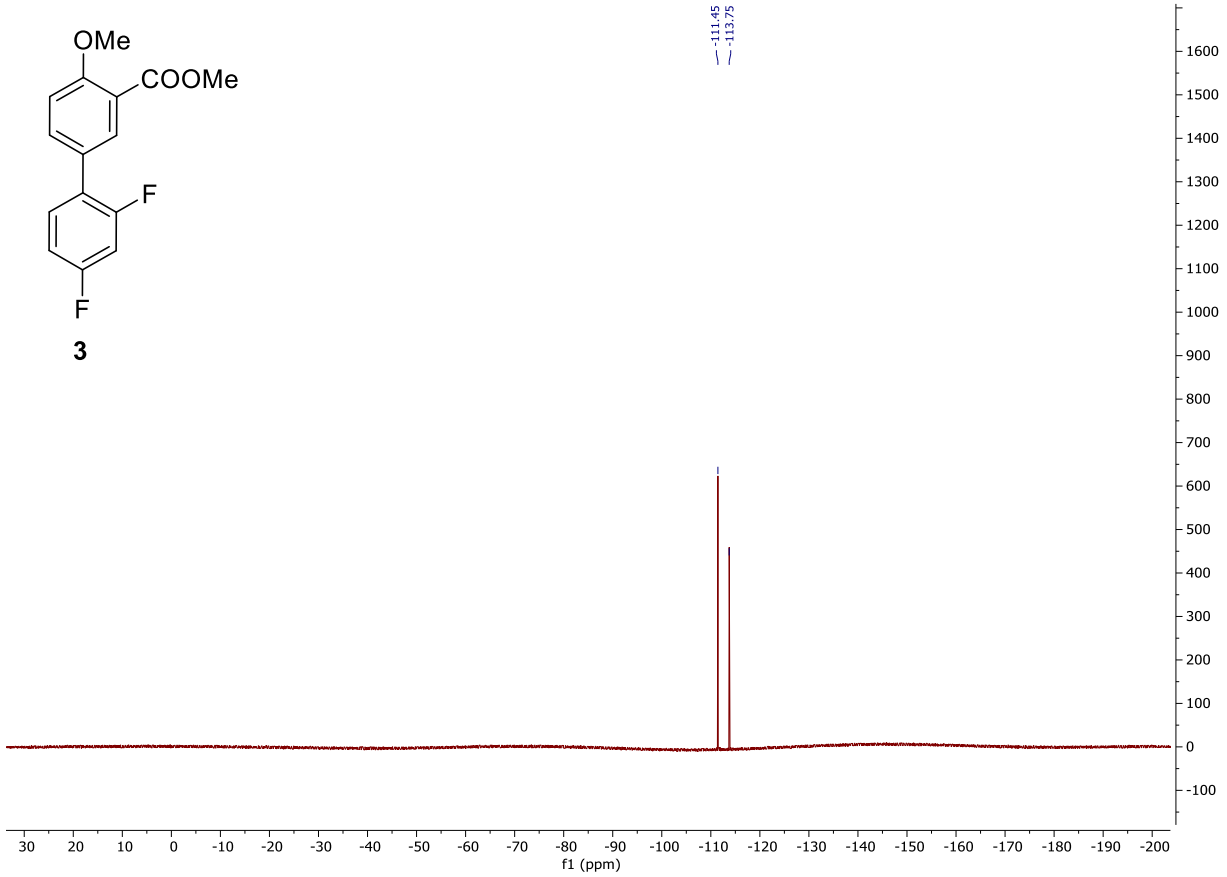

Figure S3: ^{19}F NMR spectrum of methyl compound **3** at 400 MHz NMR spectrometer.

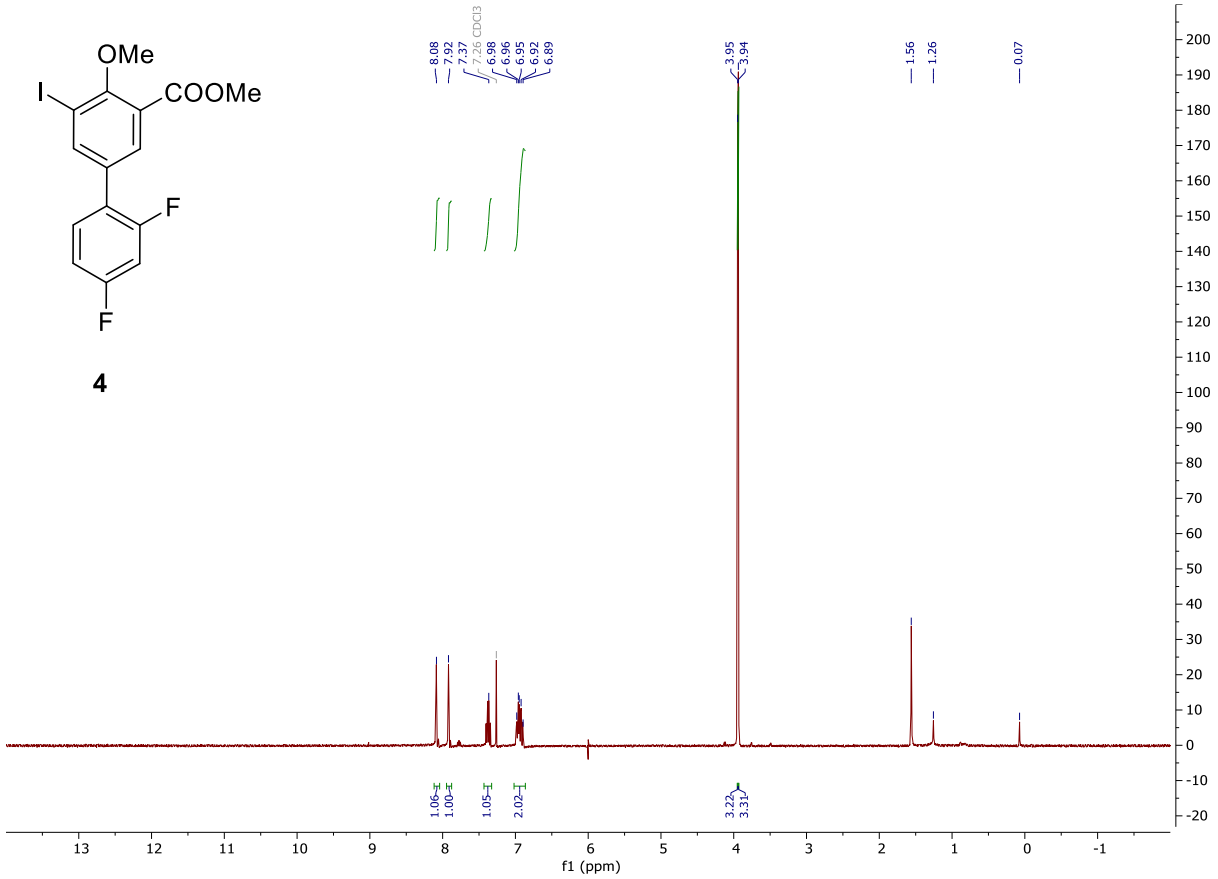

Figure S4: ^{1}H NMR spectrum of compound **4** at 400 MHz NMR spectrometer.

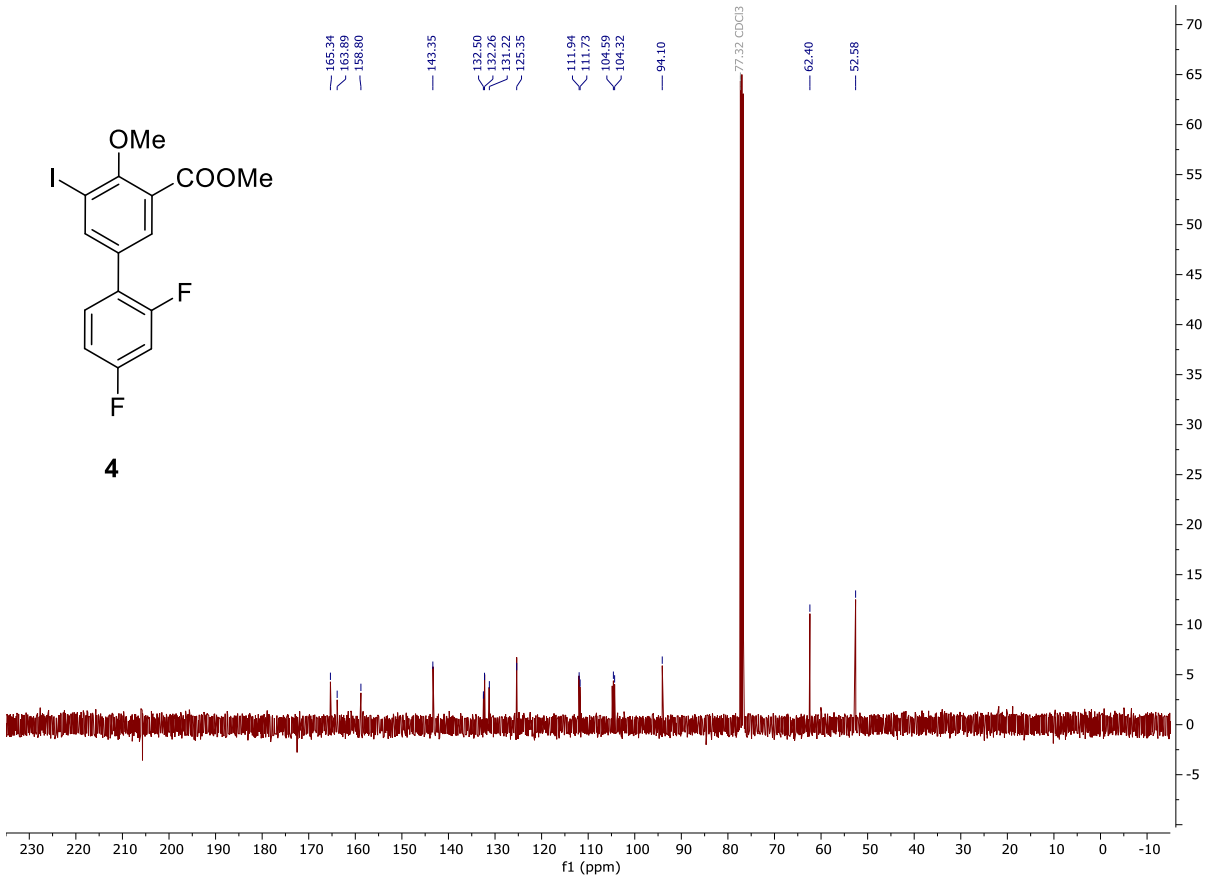

Figure S5: ^{13}C NMR spectrum of compound **4** at 100 MHz NMR spectrometer.

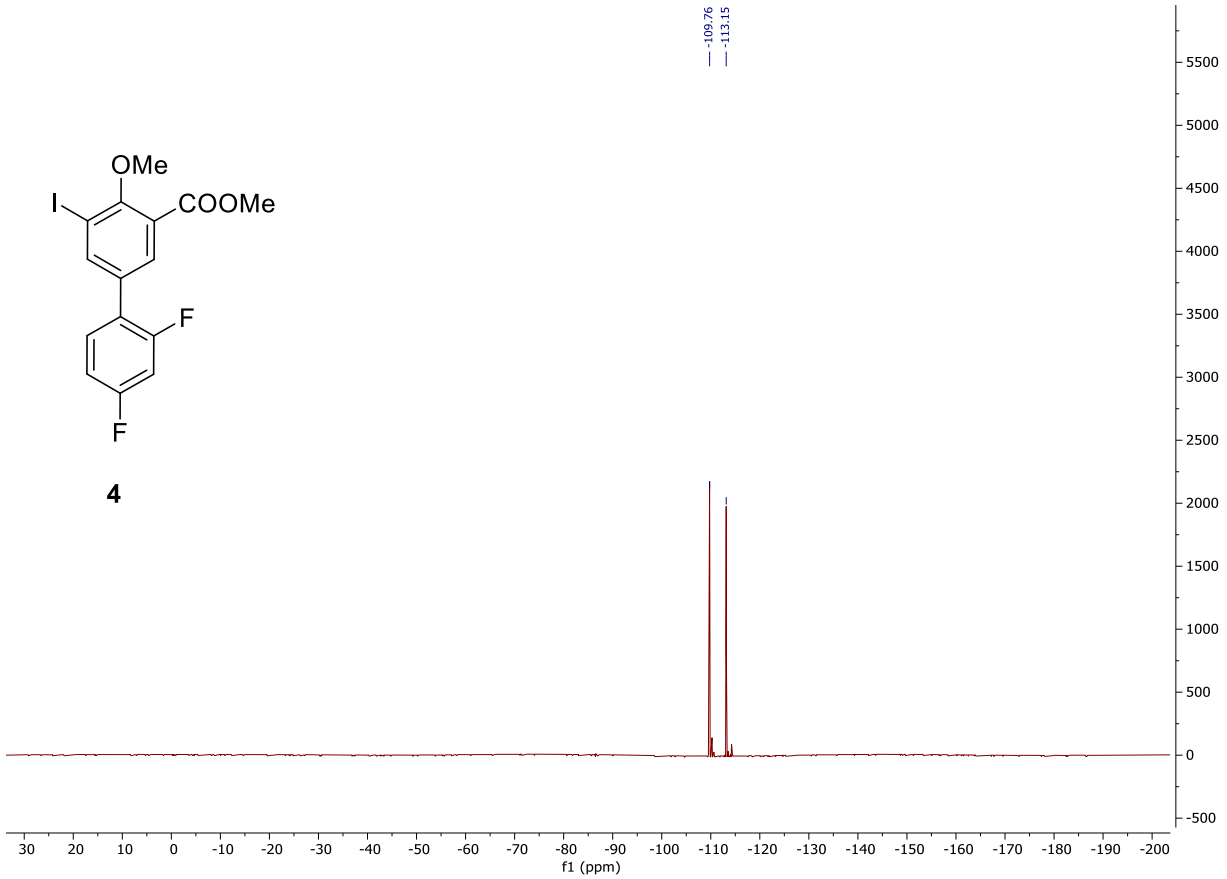

Figure S6: ^{19}F NMR spectrum of methyl compound **4** at 400 MHz NMR spectrometer.

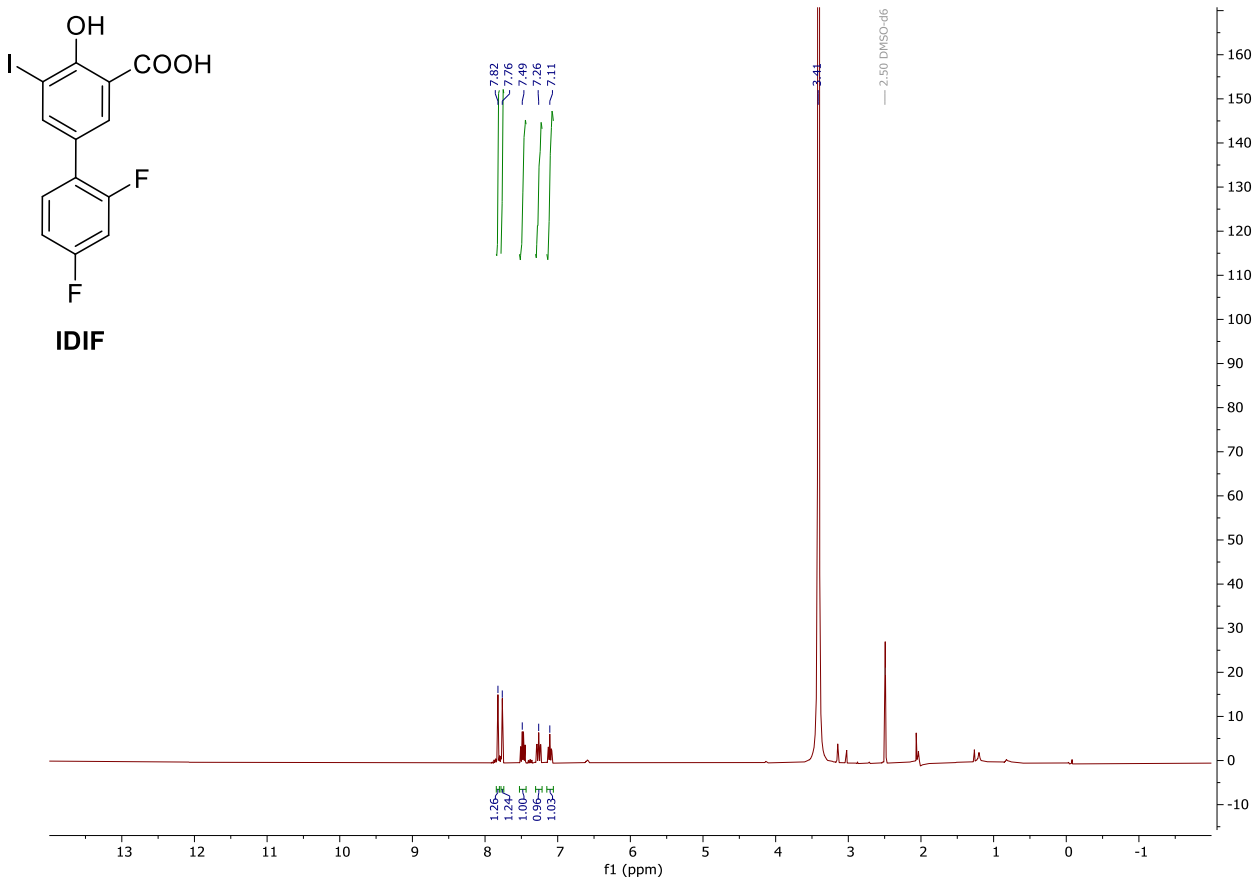

Figure S7: ^{1}H NMR spectrum of IDIF **2** at 400 MHz NMR spectrometer.

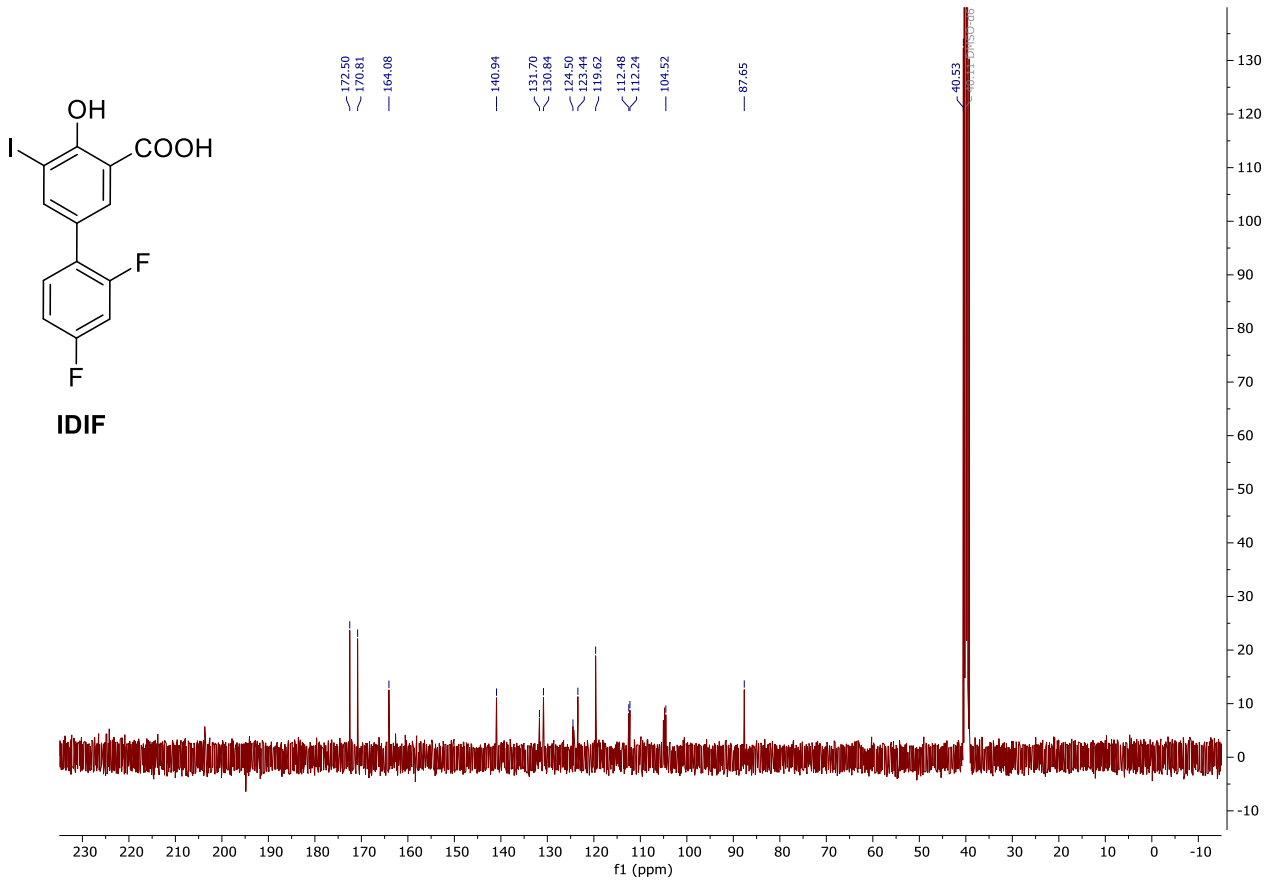

Figure S8: ^{13}C NMR spectrum of IDIF **2** at 100 MHz NMR spectrometer.

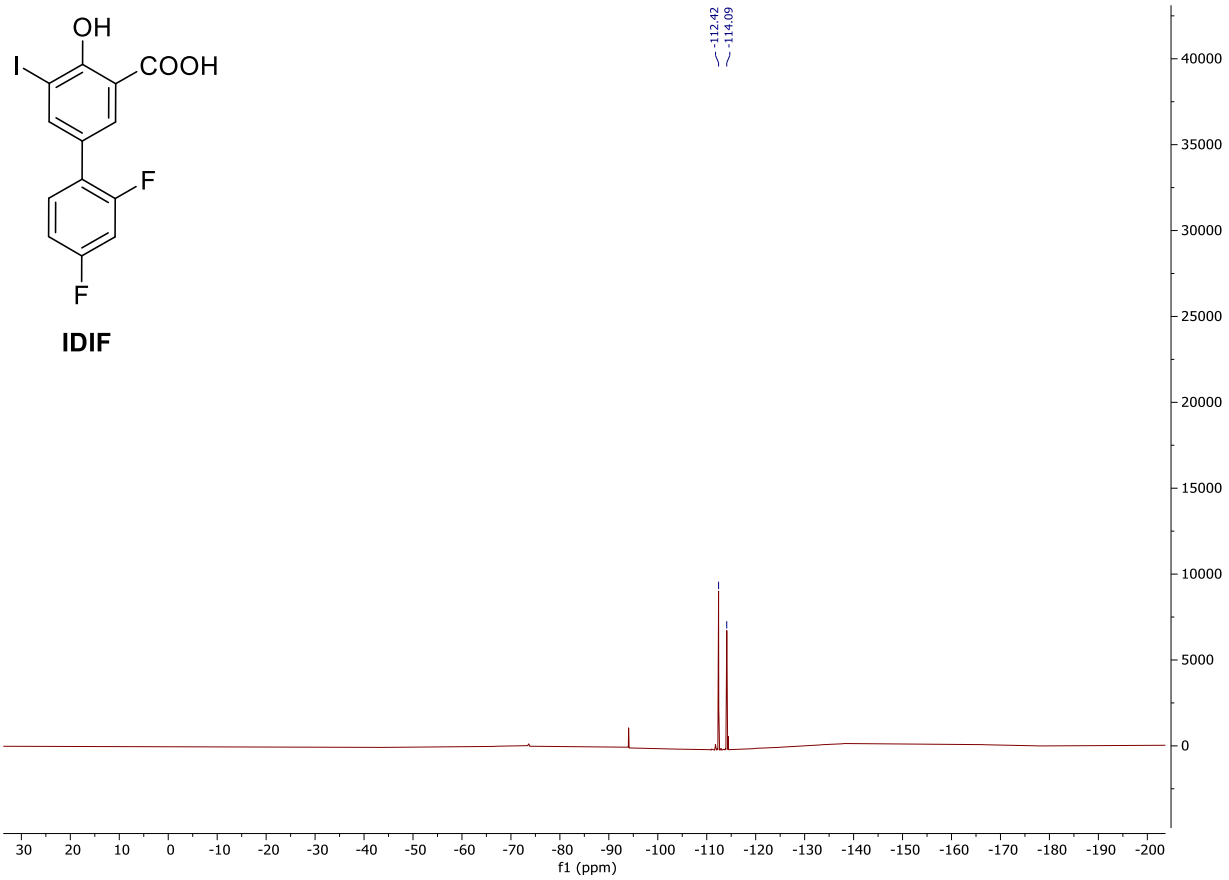

Figure S9: ^{19}F NMR spectrum of IDIF **2** at 400 MHz NMR spectrometer.

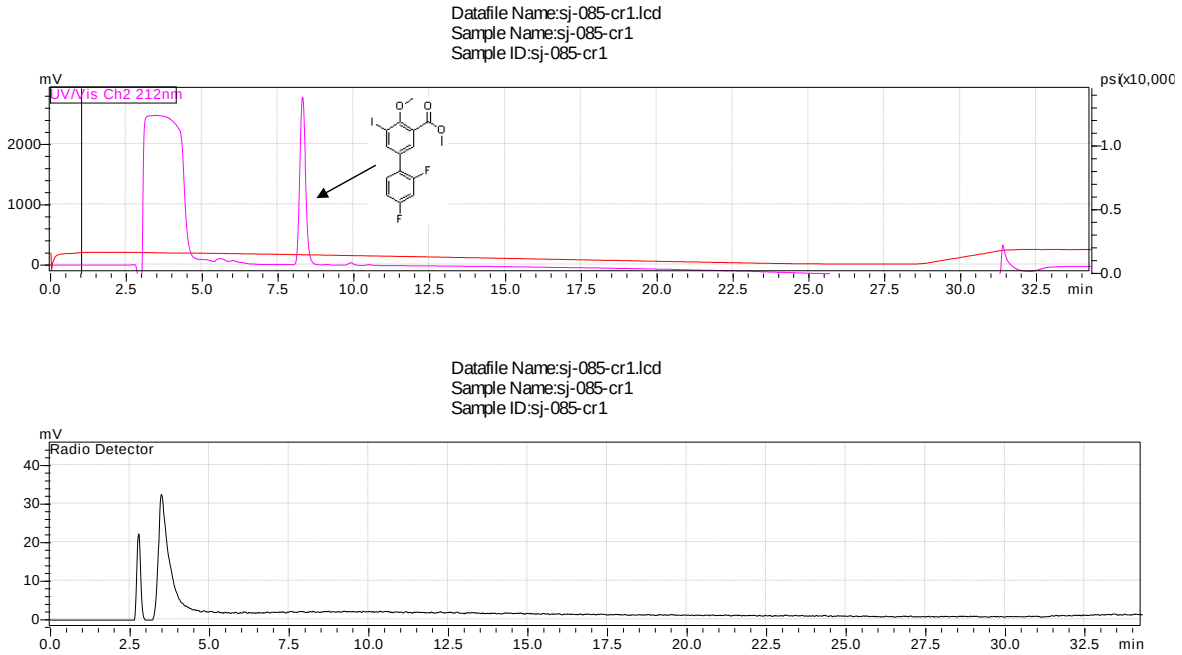

Figure S10: HPLC chromatogram (UV-212 nm and radioactive detector) for ^{18}F exchange study in NMP solvent at $140^{0}C$ for 30 minutes. No peaks are detected in the radioactive chromatogram at retention time = 8-8.5 min, confirming that isotopic exchange reaction did not occur under these experimental conditions.

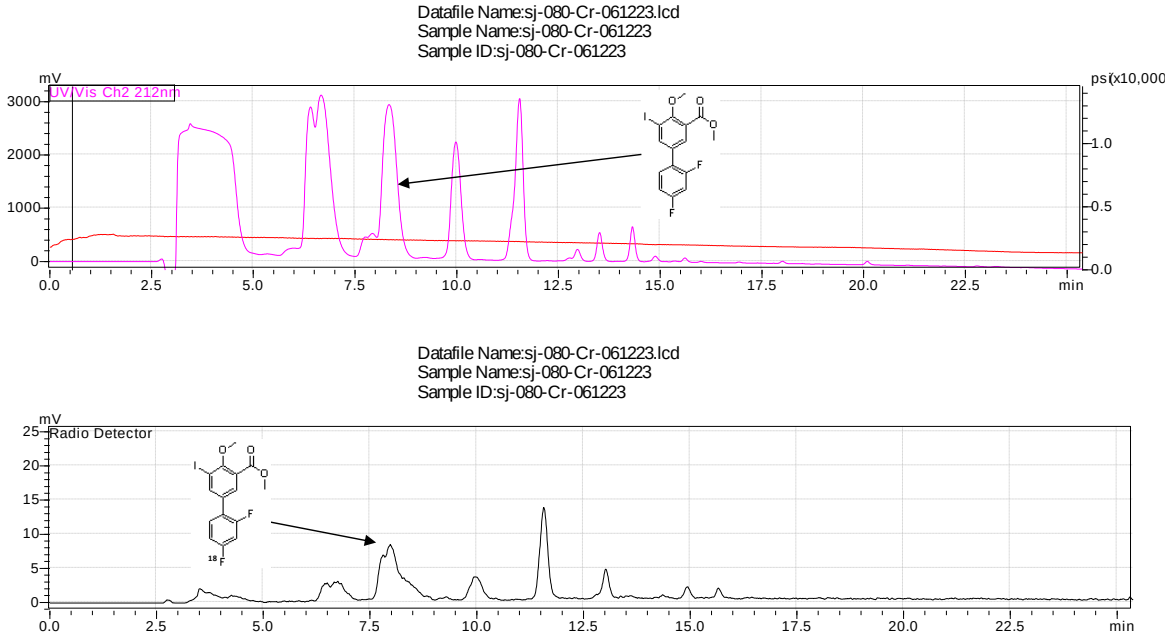

Figure S11: HPLC chromatogram (UV-212 nm and radioactive detector) for ^{18}F exchange study in NMP solvent at $180^{0}C$ for 30 minutes. The presence of a peak at the same retention time as the reference standard (retention time = 8-8.5 min) suggests the formation of the desired labelled compound, although several labelled impurities are also observed.

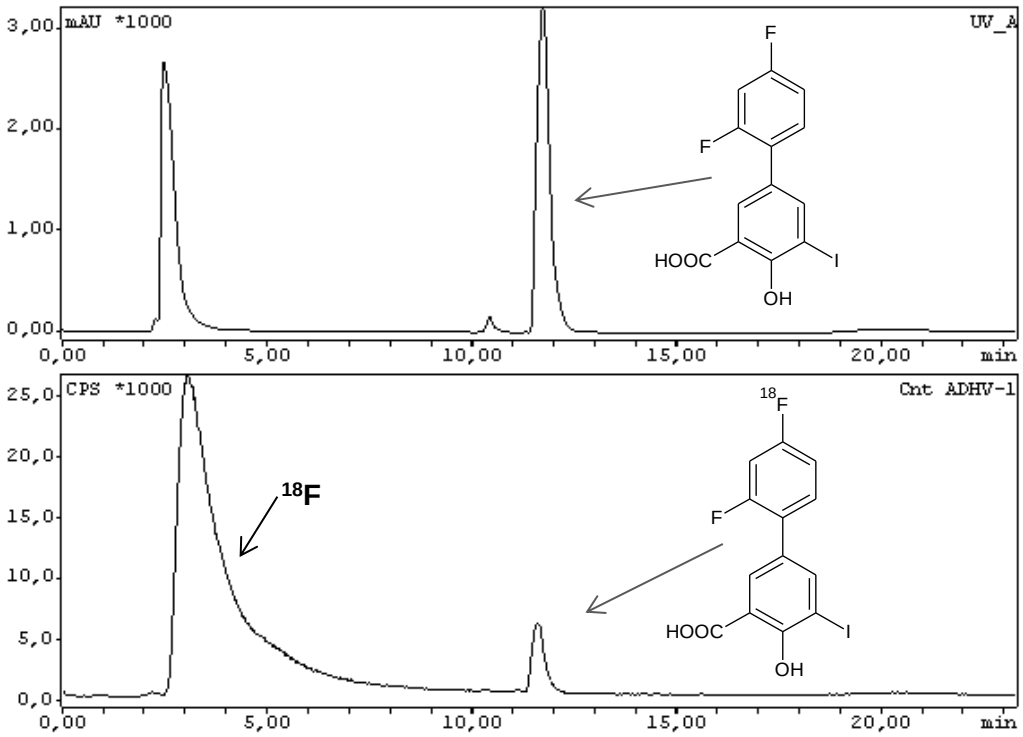

Figure S12: HPLC chromatogram (UV-254 nm and radioactive detector) for ^{18}F exchange study in DMSO solvent at 160^0C for 20 minutes. The presence of a peak at the same retention time as the reference standard suggests the formation of the desired labelled compound.

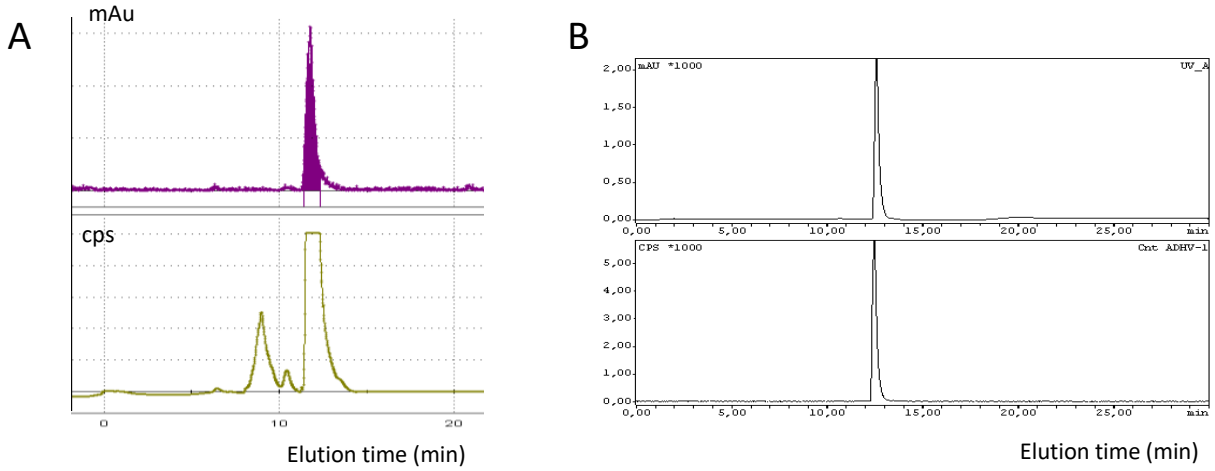

Figure S13: A) Semi-preparative HPLC chromatogram (UV-254 nm and radioactive detector) for ^{18}F exchange study in DMSO solvent at 160^0C for 20 minutes. The collected peak (retention time ca. 12 min) is indicated with solid filling; B) HPLC chromatogram (UV-254 nm and radioactive detector) corresponding to quality control of the collected fraction.