

[¹⁸F]Fluoropropyl-TZTP was synthesized according to Kiesewetter et al. (1995). A total of 1 to 4 mCi was administered with an injected mass of 4.4 +/- 6.0 nmol (range, 0.2 to 25 nmol; specific activity at time of injection, mean 1,215 Ci/mmol, range 100 to 5,000 Ci/mmol). The specific activity for each batch was determined from an aliquot of the ethanol/water solution obtained before formulation in saline. The sample was injected onto an Axxiom C-18 column (4.6 x 250 mm) (Axxiom Chromatography Moorpark, CA, U.S.A.) and eluted with 65% CH₃CN and 35% buffer at 1.5 mL/min (retention time 11.2 to 11.7 minutes). The radiochemical purity (>95%) was determined from the HPLC radiochromatogram and by radio thin-layer chromatography (TLC) on Whatman LK6DF Silica gel plates (Clifton, NJ, U.S.A.) (eluted with 90:9:1 CHCl₃:MeOH:NH₄OH). Identity was confirmed by coelution of the authentic standard and the radiochemical component by HPLC. The ultraviolet (UV) absorption at 230 nm was calibrated for mass per unit area with the authentic product. For the specific activity determination, the UV absorption was monitored at both 230 and 310 nm. The specific activity is reported as a ratio of the quantity of radioactivity injected onto the column divided by the mass of the product peak.