An alternative synthesis of [11C]raclopride for routine use

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The standard method of [\$^{11}\$C]raclopride synthesis requires a large amount of its desmethyl precursor. We prepared [\$^{11}\$C]raclopride by methylation of a small amount of desmethyl derivative (0.3–0.5 mg) with [\$^{11}\$C]methyl iodide in a DMF solution containing NaH, with a decay-corrected radiochemical yield of \$11-14\%\$ based on [\$^{11}\$C]methyl iodide and with a specific activity of 48 TBq/ mmol for 25 min from EOB. The reaction was reproducible and reliable.

Key words: [11C]raclopride, dopamine D₂ receptor, PET