Supporting Information

A Homodimeric Radioligand Derived From 1-(2-Methoxyphenyl)piperazine with High Affinity For In Vivo 5-HT1A Receptor Imaging

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Supporting Information Description:

Figure S1. 1HNMR of compound 1
Figure S2. 1HNMR of compound 1
Figure S3. Mass spectrum of compound 1
Figure S4. 1HNMR of compound 2
Figure S5. 1HNMR of compound 2
Figure S6. Mass spectrum of compound 2
Figure S7. 1HNMR of compound 3
Figure S8. 1HNMR of compound 3
Figure S9. Mass spectrum of compound 3
Figure S10. Radiochromatogram of 99m Tc-DTPA-bis(MPBA)
Figure S1. 1HNMR spectrum of 2-(2-(4-(2-methoxyphenyl)piperazin-1-yl)isoindoline-1,3-dione (1)
Figure S2. 13C NMR spectrum of 2-(2-(4-(2-methoxyphenyl)piperazin-1-yl)isoindoline-1,3-dione (1)
Figure S3. Mass spectrum of 2-(2-(4-(2-methoxyphenyl)piperazin-1-yl)isoindoline-1,3-dione (1)
**Figure S4.** $^1$HNMR spectrum of 4-(4-(2-methoxyphenyl)piperazine-1-yl)butan-1-amine (2)
Figure S5. 13C NMR spectrum of 4-(4-(2-methoxyphenyl)piperazine-1-yl)butan-1-amine (2)
Figure S6. Mass spectrum of 4-(4-(2-methoxyphenyl)piperazine-1-yl)butan-1-amine (2)
Figure S7. $^{1}HNMR$ spectrum of 5,8-bis(carboxymethyl)-15-(4-(2-methoxyphenyl)piperazine-1-yl)-2-(2-(4-(2-methoxyphenyl)piperazine-1-yl)butylamino)-2-oxoethyl)-10-oxo-2,5,8,11-tetraazapentadecane-1-carboxylic acid (3)
**Figure S8.** $^{13}$C NMR spectrum of 5,8-bis(carboxymethyl)-15-(4-(2-methoxyphenyl)piperazine-1-yl)-2-(2-(4-(2-methoxyphenyl)piperazine-1-yl)butylamino)-2-oxoethyl)-10-oxo-2,5,8,11-tetraazapentadecane-1-carboxylic acid (3)
Figure S9. Mass spectrum of 5,8-bis(carboxymethyl)-15-(4-(2-methoxyphenyl)piperazine-1-yl)-2-(2-(4-(4-(2-methoxyphenyl)piperazine-1-yl)butylamino)-2-oxoethyl)-10-oxo-2,5,8,11-tetraazapentadecane-1-carboxylic acid (3)
Figures S10. TLC Scan (Radiochromatogram) of $^{99m}$Tc DTPA-bis(MPBA)

$^{99m}$Tc DTPA-bis(MPBA)

free $^{99m}$Tc

Rf