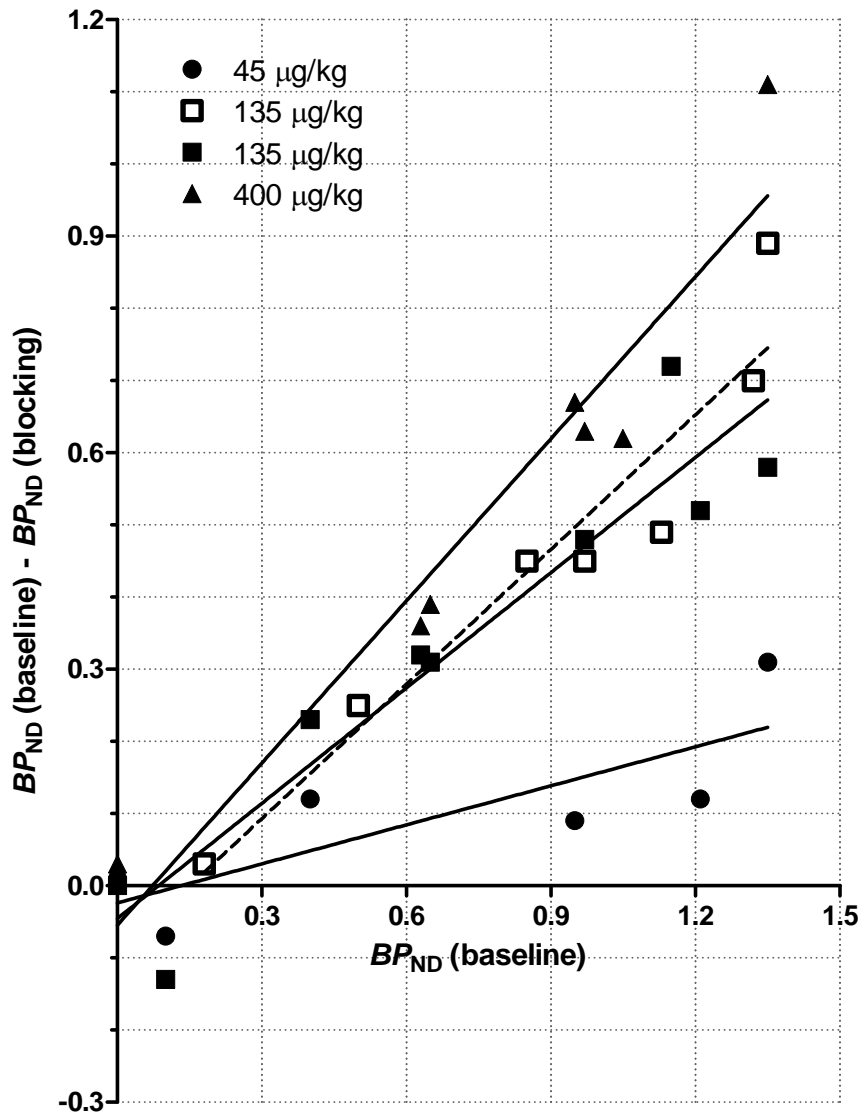


Supplemental Data



Supplemental Figure 1. Modified Lassen plot of [¹¹C]carfentanil PET data. Nucleus accumbens region was excluded because it lies distant from the line of regression. Filled-black point means same monkey.

Supplemental Table 1. Estimated parameters of one- and two-site binding model. Each region's specific binding at KOR (BP_{ND}^{KOR}) and MOR (BP_{ND}^{MOR}) and shared the effective doses of LY2795050 to achieve 50 % occupancy at KOR (ED_{50}^{KOR}) and MOR (ED_{50}^{MOR}) are shown

Two-site binding model

	caudate	cingulate	globus pallidus	putamen	nucleus accumbens	substantia nigra	frontal cortex	insula
BP_{ND}^{KOR}	0.48 ± 0.18	0.87 ± 0.23	1.00 ± 0.21	0.28 ± 0.21	0.89 ± 0.21	0.54 ± 0.18	0.42 ± 0.21	0.58 ± 0.23
BP_{ND}^{MOR}	0.07 ± 0.16	-0.01 ± 0.22	0.07 ± 0.21	0.27 ± 0.19	0.11 ± 0.20	0.15 ± 0.16	0.03 ± 0.19	-0.05 ± 0.21
ED_{50}^{KOR}	12.93 ± 4.54							
Constraints	$ED_{50}^{KOR}ED_{50}^{KOR} > 0.0$ and shared, $ED_{50}^{MOR}ED_{50}^{MOR} = 119.2$							

(Estimate \pm S.E.)

One-site binding model

	caudate	cingulate	globus pallidus	putamen	nucleus accumbens	substantia nigra	frontal cortex	insula
BP_{ND}^{KOR}	0.55 ± 0.04	0.85 ± 0.04	1.10 ± 0.04	0.58 ± 0.04	0.99 ± 0.04	0.71 ± 0.04	0.44 ± 0.04	0.51 ± 0.04
ED_{50}^{KOR}	15.63 ± 2.24							
Constraints	$ED_{50}^{KOR}ED_{50}^{KOR} > 0.0$ and shared							

(Estimate \pm S.E.)