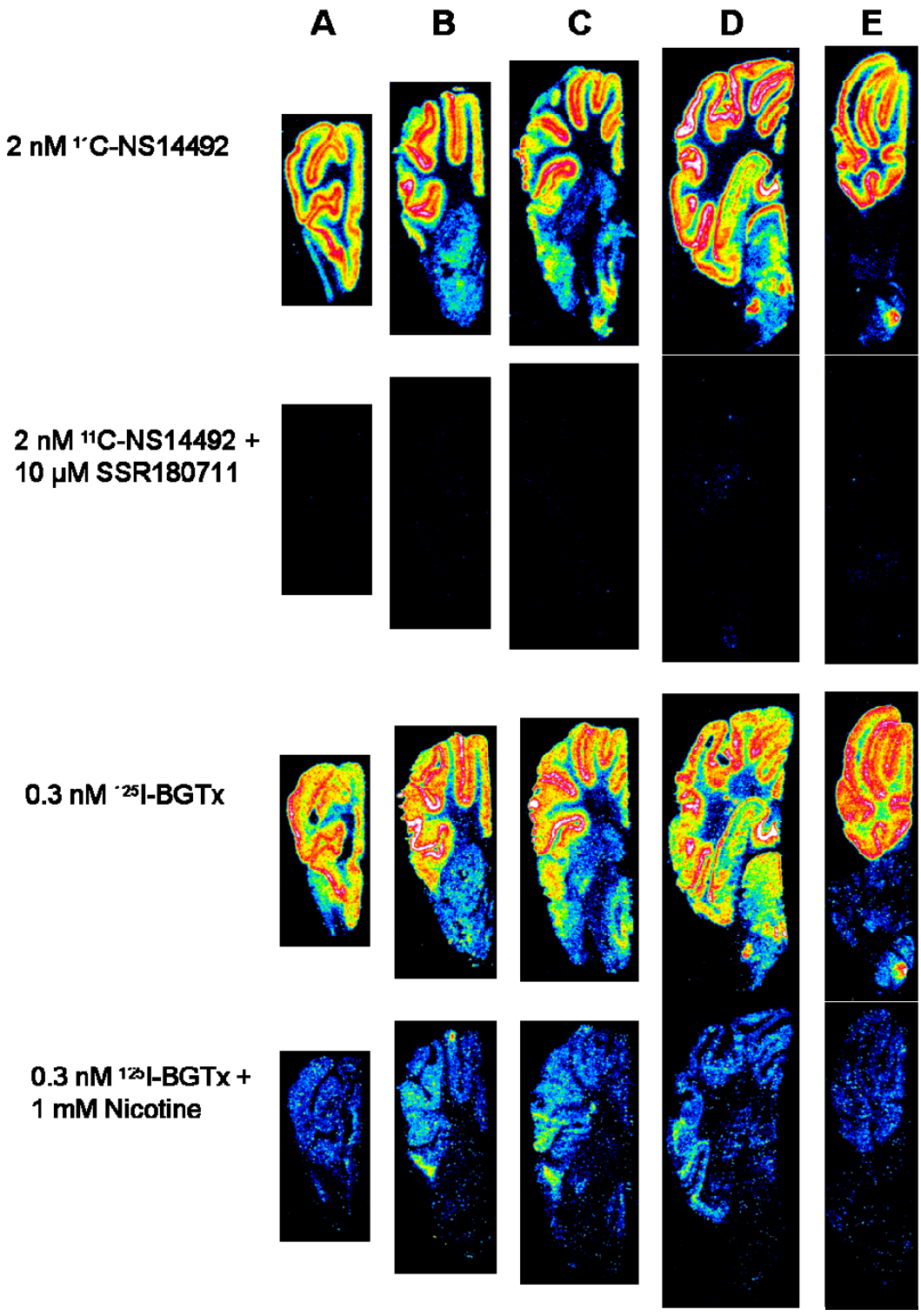
A
B
C
D
E
2 nM 11C-NS14492
2 nM 11C-NS14492 +
10 µM SSR180711
0.3 nM 125I-BGTx
0.3 nM 125I-BGTx +
1 mM Nicotine

Supplemental figure 1. In vitro α7nAChR autoradiography with ^{11}C-NS14492 and ^{125}I-α-bungarotoxin (BGTx). Twelve μm coronal pig brain sections of one hemisphere (A to E, rostral to caudal) were incubated with 2 nM ^{11}C-NS14492 or 0.3 nM ^{125}I-BGTx in assay buffer (50 mM tris-HCl, pH 7.4 for ^{11}C-NS14492 and 50 mM Tris-HCl, 0.1% bovine serum albumin, pH 7.4 for ^{125}I-BGTx). Non-specific binding was determined in adjacent sections by adding 10 μM SSR180711 or 1 mM (–)-nicotine to the incubation mixture. Sections were pre-incubated for 30 min in the appropriate buffer solution before incubation at room temperature (30 min for ^{11}C-NS14492, 2 h for ^{125}I-BGTx). Then, sections were washed by immersion in ice-cold assay buffer (2 x 2 min for ^{11}C-NS14492, 2 x 30 min for ^{125}I-BGTx), then in ice-cold water for 20 sec, quickly dried and exposed to Fuji-Film BAS-MS2040 plates overnight. Images were scaled to present same intensity of total binding between the two radioligands. Regions included in the sections from left to right are frontal cortex (A); putamen, caudate, and nucleus accumbus (B); Thalamus and parietal cortex (C), Hippocampus and thalamus (D); occipital cortex and cerebellum (E). In all images, blue and green represent low radioactivity signal while yellow and red to white represents high signal. Regional in vitro autoradiographic distribution of ^{11}C-NS14492 binding is in accordance with that of ^{125}I-BGTx, and furthermore, the non-specific binding with ^{11}C-NS14492 was very low.