

Supplementary Materials 1

Radioligand binding assay protocol

For detection of α_{1A} -adrenergic receptor (AR) activation, submaxillary gland samples of male Wistar rats were homogenized in modified Tris-HCl buffer (pH 7.4) using standard techniques, and aliquots of the prepared samples were incubated with 0.25 nM [^3H] prazosin for 60 min at 25°C. Nonspecific binding was estimated in the presence of 10 μM phentolamine (Michel et al., 1989). For detection of α_{1B} -AR activation, liver samples of male Wistar rats were prepared in modified Tris-HCl buffer using standard techniques and aliquots of the sample/Tris-HCl homogenate were incubated with 0.25 nM [^3H] prazosin for 60 min at 25°C. Nonspecific binding was estimated in the presence of 10 μM phentolamine (Garcia-Sainz et al., 1992; Michel et al., 1989). For the α_{2A} -AR binding assay, insect Sf9 cells expressing human recombinant α_{2A} -AR were homogenized in modified Tris-HCl buffer and aliquots were incubated with 1 nM [^3H] MK-912 for 60 min at 25°C. Nonspecific binding was estimated in the presence of 10 μM WB-4101 (Uhlen et al., 1994). For α_{2B} -AR, CHO-K1 cells stably transfected with a plasmid encoding human α_{2B} -AR were homogenized in modified Tris-HCl buffer using standard techniques and aliquots were incubated with 2.5 nM [^3H] rauwolscine for 60 min at 25°C. Nonspecific binding was estimated in the presence of 10 μM prazosin (Uhlen et al., 1998). For α_{2C} -AR, insect Sf9 cells expressing human recombinant α_{2C} -AR were homogenized in modified Tris-HCl buffer and aliquot was incubated with 1 nM [^3H] MK-912 for 60 min at 25°C. Nonspecific binding was estimated in the presence of 10 μM WB-4101 (Uhlen et al., 1994). For β_1 -AR, CHO-K1 cells expressing human recombinant β_1 -AR were homogenized in modified Tris-HCl buffer and aliquots were incubated with 0.03 nM [^{125}I] cyanopindolol for 120 min at 25°C. Nonspecific binding was estimated in the presence of 100 μM S (-)-propranolol (Feve et al., 1994). For β_3 -AR, HEK-293 cells expressing human β_3 -AR expressed were used to prepare membranes in modified Tris-HCl buffer and aliquots were incubated with 0.5 nM [^{125}I] iodocyanopindolol for 90 min at 25°C. Nonspecific binding was estimated in the presence of 1 mM alprenolol (Feve et al., 1994). All samples were filtered twice and assayed to determine radio ligand-specific binding. The half maximal inhibitory concentrations (IC_{50}) values were determined by nonlinear, least-squares regression analysis using MathIQ™ statistical software (ID Business Solutions Ltd., Surrey, UK).

References

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