

Data Sheet

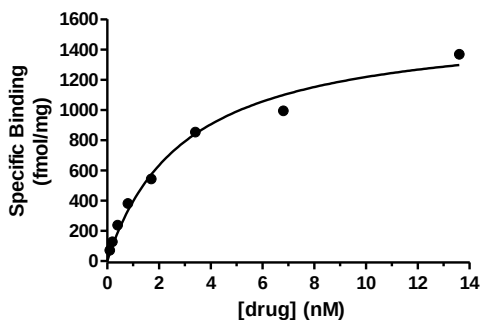
Radioligand Binding Assay

Examples

Gifford Bioscience specialize in radioligand binding assays to both recombinant and native receptors in a wide variety of cell and tissue receptor systems.

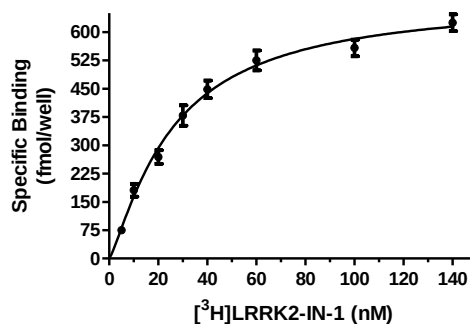
SATURATION BINDING

$[^3\text{H}]$ flumazenil binding to benzodiazepine receptors;
human cortex (post-mortem)



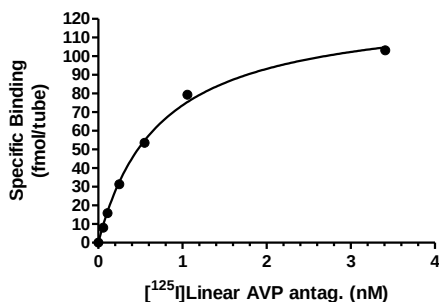
K_d : 3.2 nM
 B_{max} : 1584 fmol/mg

$[^3\text{H}]$ LRRK2-IN-1 binding to membrane-associated
LRRK2 enzyme in rat kidney



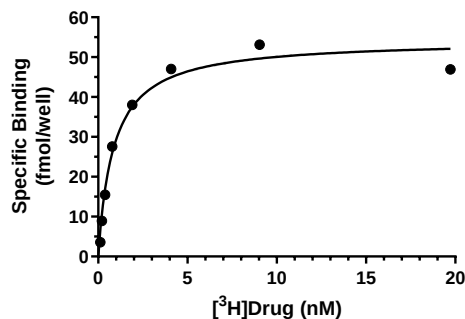
K_d : 26 ± 3 nM
 B_{max} : 688 ± 35 fmol/well
 6.4 ± 0.04 pmol/mg

$[^{125}\text{I}]$ Linear AVP antagonist binding to vasopressin V1a receptors;
rat liver membranes



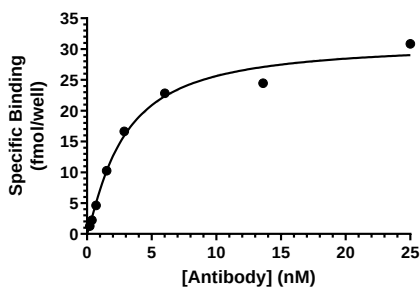
K_d : 0.72 nM
 B_{max} : 126.9 fmol/tube

$[^3\text{H}]$ SR141716A binding to CB1 receptors;
rat cerebellum



K_d : 0.87 nM
 B_{max} : 54.4 fmol/well (0.79 pmol/mg protein)

$[^{125}\text{I}]$ antibody binding to cell surface antigen sites;
SKBR3 cells



K_d : 2.76 nM
 B_{max} : 31.1 fmol per well
(557,680 sites/cell)

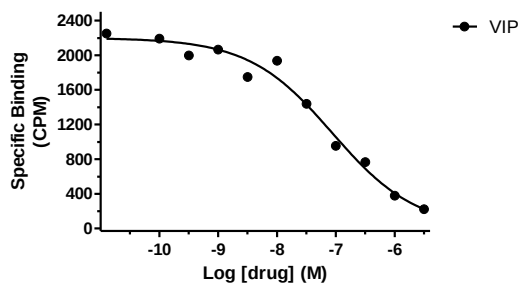
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Radioligand Binding Assay

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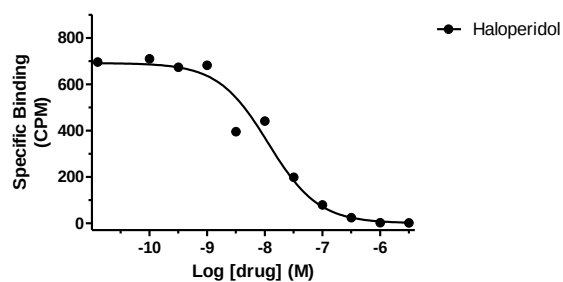
COMPETITION BINDING

$[^{125}\text{I}]\text{VIP}$ binding to VPAC2 receptors;
human recombinant



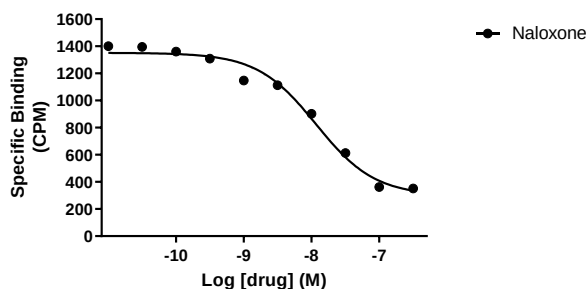
Log IC_{50} (M): -7.02

$[^3\text{H}]\text{Pentazocine}$ binding to sigma 1 receptors;
guinea pig brain



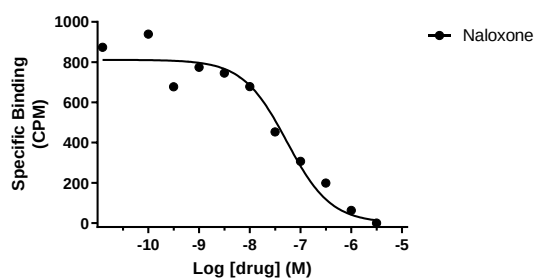
Log IC_{50} (M): -7.9

$[^3\text{H}]\text{Diprenorphine}$ binding to opioid receptors;
rat brain



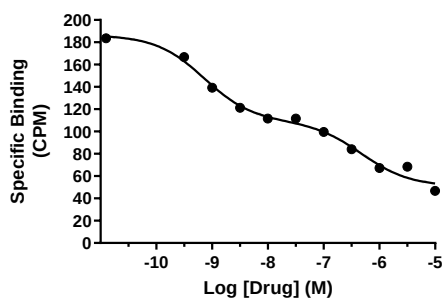
Log IC_{50} (M): -7.93

$[^{125}\text{I}]\text{Deltorphin}$ binding to opiate receptors;
rat brain



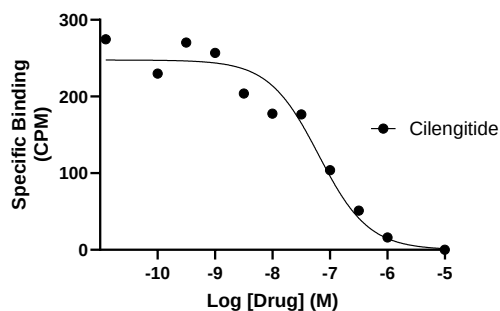
Log IC_{50} (M): -7.27

$[^3\text{H}]\text{CGS 21680}$ Binding to Adenosine $\text{A}_{2\text{a}}$ receptors in
Human Caudate-Putamen



Two site binding
Log IC_{50} (M): -9.22 (High), -6.52 (Low)

$[^{125}\text{I}]\alpha\text{V}\beta 6$ Integrin Binding to Immobilized
Human Fibronectin



Log IC_{50} (M): -7.197

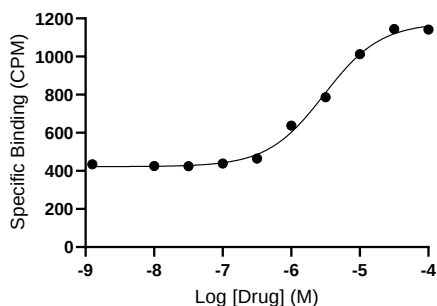
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Radioligand Binding Assay

Examples

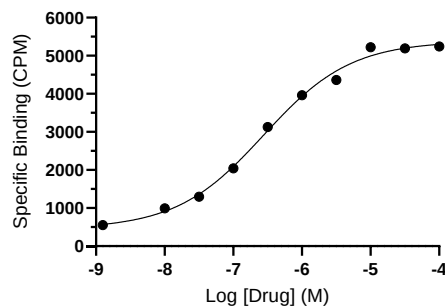
STIMULATION [³⁵S]GTPγS BINDING

[³⁵S]GTPγS Binding in Rat Brain Striatum;
Stimulation by Acetylcholine



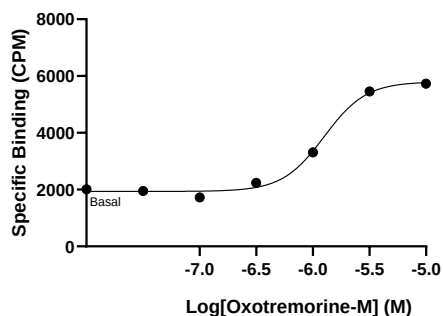
Log EC₅₀ (M) -5.52
EC₅₀ (μM) 3.01
E_{max} (C.P.M.) 1177

[³⁵S]GTPγS Binding in Rat Striatum;
Stimulation by DAMGO



Log EC₅₀ (M) -6.39
EC₅₀ (μM) 0.405
E_{max} (C.P.M.) 5385

[³⁵S]GTPγS Binding in Rat Brain with Post-Hoc Immunoprecipitation Step
to Selectively Measure Agonist-Stimulated Binding to Gq alpha (M2/M4
receptors): Oxotremorine-M



Log EC₅₀ (M): -5.90
EC₅₀ (μM): 1.25

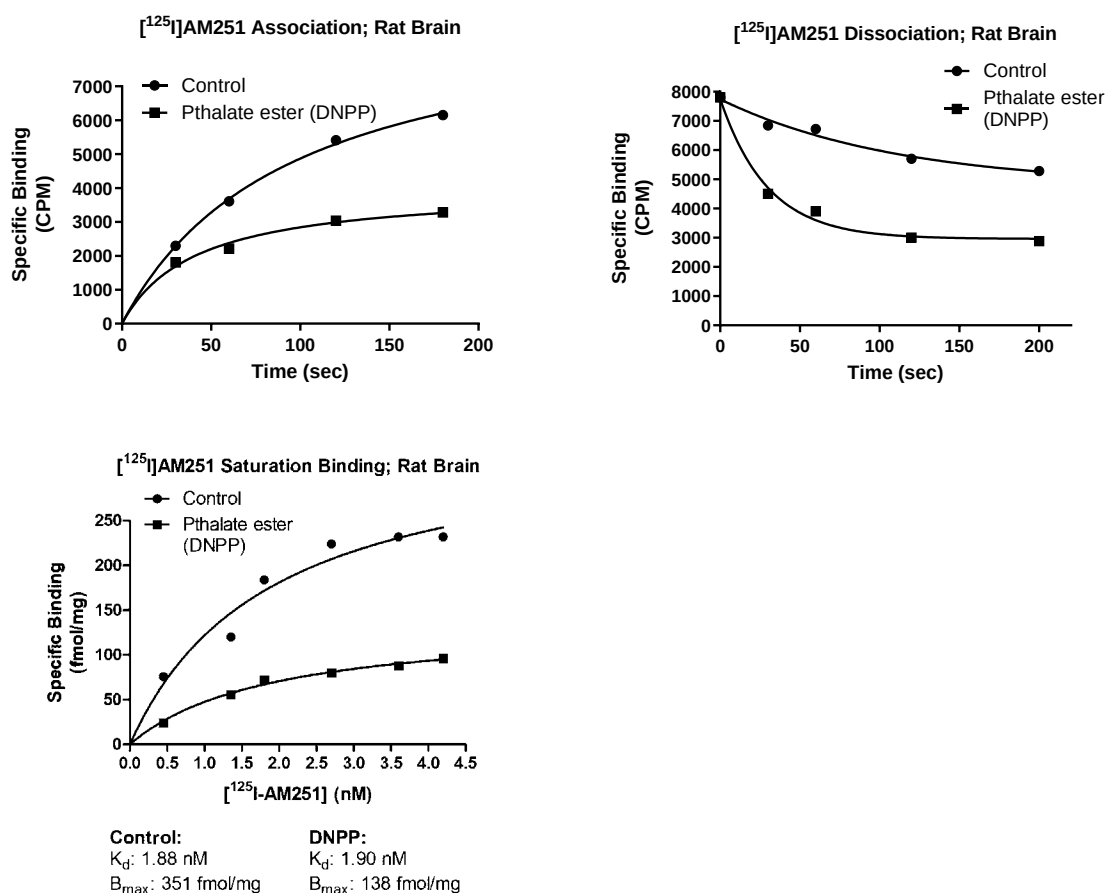
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Radioligand Binding Assay

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KINETICS AND MECHANISM-OF-ACTION

Effect of Di-n-pentyl phthalate (DNPP; 40 μ M) on association rate, dissociation rate and saturation binding of the cannabinoid ligand [125 I]AM251 in rat brain. The enhanced dissociation rate and lowered $B_{\max}$ for [125 I]AM251 binding in the presence of the inhibitor is consistent with an allosteric binding site for DNPP on the CB₁ receptor:

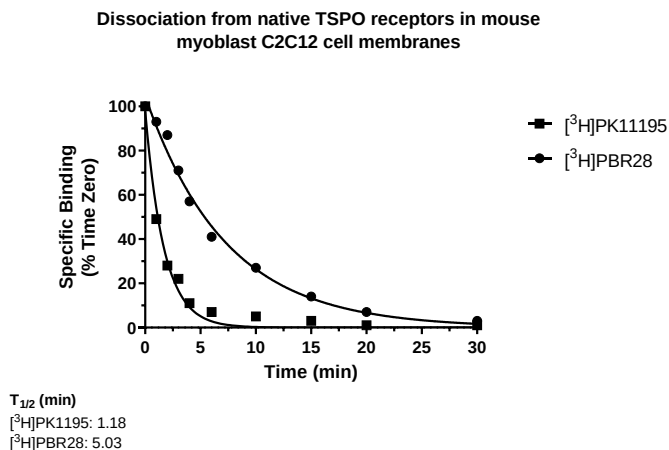


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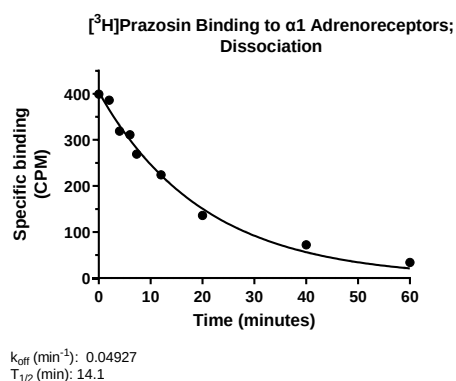
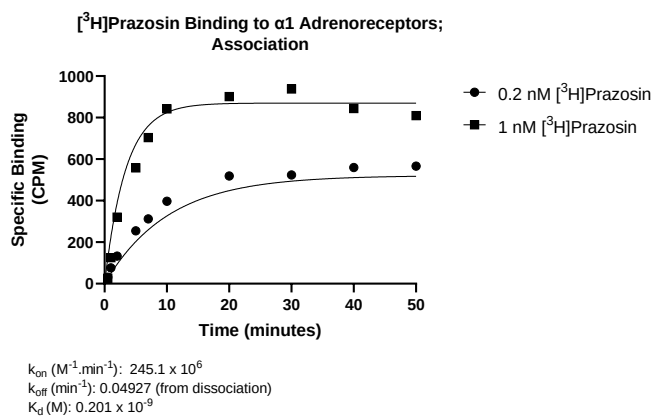
Radioligand Binding Assay

Examples

Comparison of dissociation rates of two TSPO receptor radioligands in washed membranes from C2C12 cells, measured at 30 °C:



Kinetic assay for $[^3\text{H}]\text{prazosin}$ binding to pig brain α_1 adrenoreceptors:

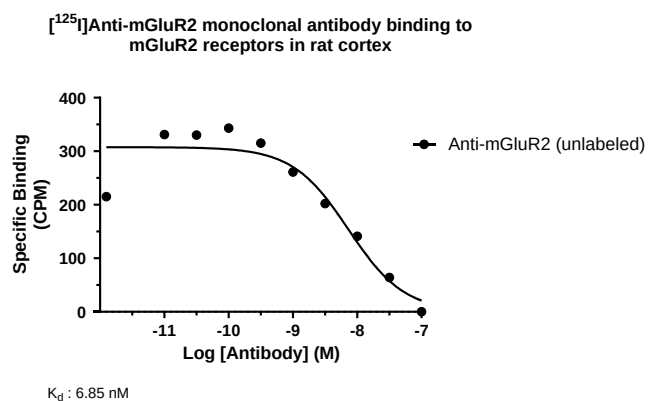


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Radioligand Binding Assay

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Radiolabeled-antibody binding assay for [125 I]Anti-mGluR2 binding to rat cortex mGluR2 receptors:



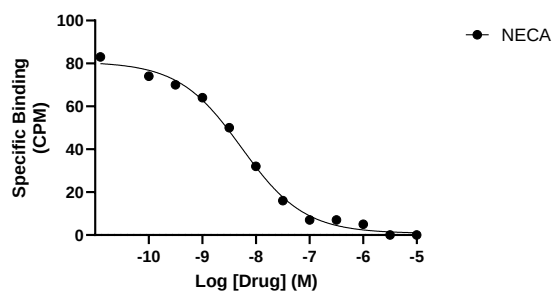
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Radioligand Binding Assay

Examples

SCINTILLATION PROXIMITY ASSAY

[³H]NECA Binding to A₁ Adenosine Receptors (SPA Format);
Competition with Unlabeled NECA



[³H]NECA Binding to A₁ Adenosine Receptors (SPA Format);
Competition with ZM241385

