Dopamine receptor D_1 polyclonal antibody

Dopamine is the predominant catecholamine neurotransmitter in the mammalian brain, where it regulates locomotor, emotional, memory, and dietary intake functions, as well as peripheral roles such as hormone secretion and renal function. Dopamine receptors (D1-D5) are members of the seven transmembrane domain containing G-protein coupled receptor (GPCR) family A, and are the target of several anti-psychosis and anti-Parkinsonian drugs. The D2, D3, and D4 dopamine receptors are encoded by homologous intron-containing genes, and signal via coupling of Gi/Go alpha G-protein subunits to inhibit adenylyl cyclase activity, as well as modulate cellular ion channel conductance of K+ and Ca2+. This is in contrast to D1 and D5 dopamine receptors, which signal via Gs alpha subunits to activate adenylyl cyclase activity. Coactivation of D1 and D2 receptors has been shown to activate a Gq mediated pathway, stimulating phospholipase C (PLC) and mobilizing intracellular calcium stores. D1 receptors were initially characterized in the striatum and retina and are expressed throughout the brain in the olfactory tubercle, islands of Calleja, entopeduncular nucleus, neocortex, hippocampus, and amygdala. Expression of the D2 receptor is found primarily in the brain (striatum, olfactory tubercle, and nucleus accumbens) and in the anterior and intermediate lobes of the pituitary.

This antibody is covered by our Worry-Free Guarantee.

Citations: 1 View Online »

Ordering Information

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ADI-905-789-100	100µg

Manuals, SDS & CofA

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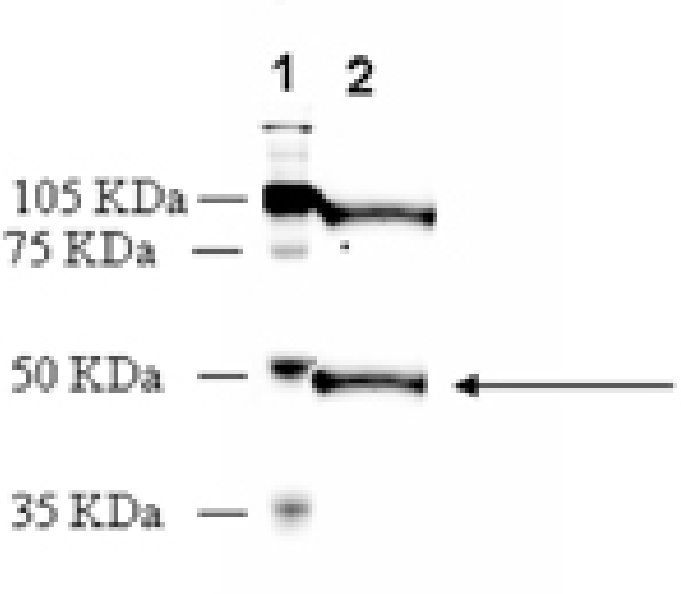
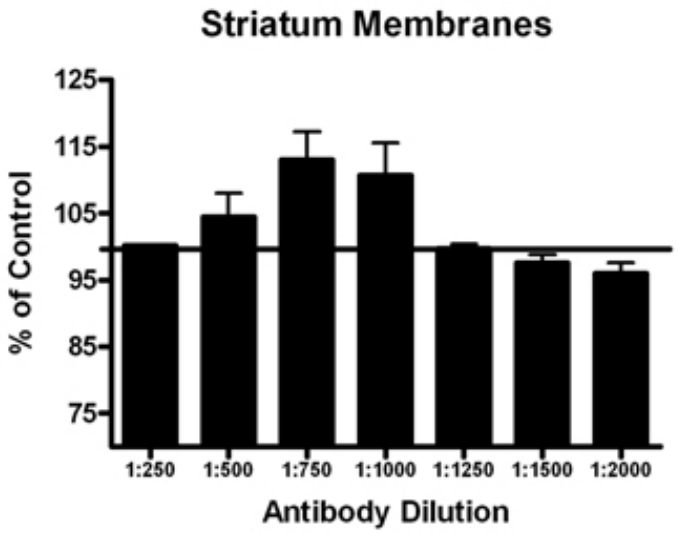


Western blot analysis: MW marker (1) and 25µg of rat brain membrane extract (2) probed with Dopamine Receptor (D1) pAb at 2.2µg/ml.



Membrane ELISA: Lewis rat striatum membranes (5µg/well) were treated with 1 µM concentrations of agonist (SKF- 38393) and probed with Dopamine Receptor (D1) pAb (1:250 to 1:2000 of a 1µg/µl stock solution) by ELISA. Data from vehicle treated cells were taken as 100%. Results are the mean ± SEM (n=3).

Handling & Storage

Handling	Keep on ice at all times.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	DRD, D2R
Application	ELISA, IHC, WB
Application Notes	Suitable for cell-based and membrane-based ELISA. Predicted MW of ~49kDa. Higher MW species (~100kDa) and intermediates also observed by Western blot which reflect post-translational modification of the receptor.
Crossreactivity	Predicted species reactivity based on epitope sequence homology: mouse, dog, bovine, wild boar.
Formulation	Liquid. In PBS containing 50% glycerol and 0.01% sodium azide.
Host	Rabbit
Immunogen	Synthetic peptide corresponding to the sequence near the N-terminus of rat dopamine receptor D1.
Purity Detail	Peptide affinity purified.
Species Reactivity	Rat
UniProt ID	P18901
Worry-free Guarantee	**This antibody is covered by our Worry-Free Guarantee .**

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