SANTA CRUZ BIOTECHNOLOGY, INC.

D2DR (H-50): sc-9113

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

The members of the G protein-coupled receptor family are distinguished by their slow transmitting response to ligand binding. These transmembrane proteins include the adrenergic, serotonin and dopamine receptors. The effect of the signaling molecule can be excitatory or inhibitory depending on the type of receptor to which it binds. β-adrenergic receptor bound to adrenaline activates adenylyl cyclase, while α2-adrenergic receptor bound to adrenaline inhibits adenylyl cyclase. The dopamine receptors are divided into two classes, D1 and D2, which differ in their functional characteristics in that D1 receptors stimulate adenylyl cyclase while D2 receptors inhibit adenylyl cyclase activity. Five different subtypes of dopamine receptor have been described to date. D1DR and D5DR belong to the D1 subclass, while D2DR, D3DR and D4DR belong to the D2 subclass of dopamine receptors.

CHROMOSOMAL LOCATION

Genetic locus: DRD2 (human) mapping to 11q23.2; Drd2 (mouse) mapping to 9 A5.3.

SOURCE

D2DR (H-50) is a rabbit polyclonal antibody raised against amino acids 1-50 of D2DR of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

D2DR (H-50) is recommended for detection of D2DR long and short forms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

D2DR (H-50) is also recommended for detection of D2DR long and short forms in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for D2DR siRNA (h): sc-35161, D2DR siRNA (m): sc-35162, D2DR shRNA Plasmid (h): sc-35161-SH, D2DR shRNA Plasmid (m): sc-35162-SH, D2DR shRNA (h) Lentiviral Particles: sc-35161-V and D2DR shRNA (m) Lentiviral Particles: sc-35162-V.

Molecular Weight of D2DR: 48/51 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat brain extract: sc-2392.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

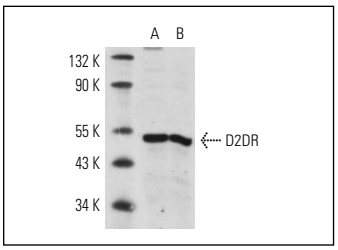
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

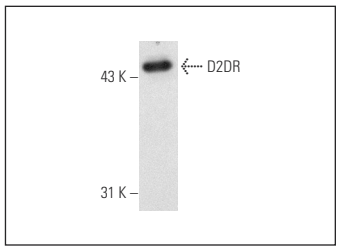
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



D2DR (H-50): sc-9113. Western blot analysis of D2DR expression in rat brain (**A**) and mouse brain (**B**) tissue extracts.



D2DR (H-50): sc-9113. Western blot analysis of D2DR expression in H4 whole cell lysate.

SELECT PRODUCT CITATIONS

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2. Fioretti, B., et al. 2004. Histamine activates a background, arachidonic acid-sensitive K channel in embryonic chick dorsal root ganglion neurons. Neuroscience 125: 119-127.
3. Ramírez, A.R., et al. 2009. The presence and function of dopamine type 2 receptors in boar sperm: a possible role for dopamine in viability, capacitation, and modulation of sperm motility. Biol. Reprod. 80: 753-761.
4. Strell, C., et al. 2009. Divergent effects of norepinephrine, dopamine and substance P on the activation, differentiation and effector functions of human cytotoxic T lymphocytes. BMC Immunol. 10: 62.
5. Urigüen, L., et al. 2009. Immunodensity and mRNA expression of A2A adenosine, D2 dopamine, and CB1 cannabinoid receptors in postmortem frontal cortex of subjects with schizophrenia: effect of antipsychotic treatment. Psychopharmacology 206: 313-324.
6. Pascual, M., et al. 2009. Repeated alcohol administration during adolescence causes changes in the mesolimbic dopaminergic and glutamatergic systems and promotes alcohol intake in the adult rat. J. Neurochem. 108: 920-931.
7. Kern, C.H., et al. 2010. Preweaning manganese exposure causes hyperactivity, disinhibition, and spatial learning and memory deficits associated with altered dopamine receptor and transporter levels. Synapse 64: 363-378.
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9. Merlo, S., et al. 2011. Distinct effects of pramipexole on the proliferation of adult mouse sub-ventricular zone-derived cells and the appearance of a neuronal phenotype. Neuropharmacology 60: 892-900.