

D5DR (C-20): sc-1440

BACKGROUND

D5DR (Dopamine receptor D5, DR1B, DRD1L2) is a G protein-coupled receptor of the D1-like family that stimulates adenylyl cyclase and has a 10-fold higher affinity for Dopamine than the D1 subtype. D5DR is present in neurons in the limbic regions of the brain. D5DR mRNA is most abundant in discrete cortical areas (layers II, IV and VI), the dentate gyrus and hippocampal subfields with low levels in the striatum. There are five major types of Dopamine receptors. All are G protein-coupled metabotropic receptors and can be excitatory or inhibitory to the post-synaptic neuron. D1 (D1A, D1C, D1D) and D5 (D1B) receptors belong to the D1-like receptor family. The D2, D3 and D4 receptors belong to the D2-like receptor family. Activation of the D1-like family receptors couples to increases in cAMP and is typically excitatory, while D2-like activation reduces cAMP and is typically inhibitory. Significant age-related decline in Dopamine receptor mRNAs occurs in the hippocampus and entorhinal cortex.

CHROMOSOMAL LOCATION

Genetic locus: DRD5 (human) mapping to 4p16.1.

SOURCE

D5DR (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of D5DR 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.

Blocking peptide available for competition studies, sc-1440 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

D5DR (C-20) is recommended for detection of D5DR of 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).

D5DR (C-20) is also recommended for detection of D5DR in additional species, including canine, bovine, porcine and avian.

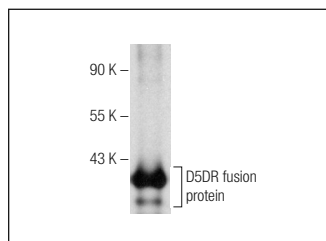
Suitable for use as control antibody for D5DR siRNA (h): sc-41934, D5DR shRNA Plasmid (h): sc-41934-SH and D5DR shRNA (h) Lentiviral Particles: sc-41934-V.

Molecular Weight of D5DR: 53 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



D5DR (C-20): sc-1440. Western blot analysis of human recombinant D5DR fusion protein.

SELECT PRODUCT CITATIONS

1. Ricci, A., et al. 1999. Dopamine D1-like receptor subtypes in human peripheral blood lymphocytes. *J. Neuroimmunol.* 96: 234-240.
2. Sodja, C., et al. 2002. Identification of functional Dopamine receptors in human teratocarcinoma NT-2 cells. *Brain Res. Mol. Brain Res.* 99: 83-91.
3. 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.

RESEARCH USE

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

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Try **D5DR (E-12): sc-376088**, our highly recommended monoclonal alternative to D5DR (C-20).