

SR-1B (H-44): sc-28937

BACKGROUND

The members of the G protein-coupled receptor family are distinguished by their slow transmitting response to ligand binding. These seven 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 bound to adrenaline activates adenylyl cyclase, while α_2 -adrenergic receptor bound to adrenaline inhibits adenylyl cyclase. Like the α_2 -adrenergic receptor, serotonin receptor functions are also mediated by G proteins that inhibit the activity of adenylyl cyclase. The serotonin receptors have been classified into several categories, designated SR-1-7 (5HT1-7). Subtypes within the SR-1 group include SR-1A, -1B, -1D, -1E and -1F.

REFERENCES

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- Cotecchia, S., et al. 1990. Multiple second messenger pathways of α -adrenergic receptor subtypes expressed in eukaryotic cells. *J. Biol. Chem.* 265: 63-69.
- Bertin, B., et al. 1992. Functional expression of the human serotonin 5-HT1A receptor in *Escherichia coli*. Ligand binding properties and interaction with recombinant G protein α -subunits. *J. Biol. Chem.* 267: 8200-8206.
- Levy, F.O., et al. 1992. Molecular cloning of a human gene (S31) encoding a novel serotonin receptor mediating inhibition of adenylyl cyclase. *FEBS Lett.* 296: 201-206.
- Barak, L.S., et al. 1995. The conserved seven-transmembrane sequence NP(X)2,3Y of the G protein-coupled receptor superfamily regulates multiple properties of the β_2 -adrenergic receptor. *Biochemistry* 34: 15407-15414.
- Pandey, S.C., et al. 1995. Phosphoinositide system-linked serotonin receptor subtypes and their pharmacological properties and clinical correlates. *J. Psychiatry Neurosci.* 20: 215-225.

CHROMOSOMAL LOCATION

Genetic locus: HTR1B (human) mapping to 6q14.1; Htr1b (mouse) mapping to 9 E1.

SOURCE

SR-1B (H-44) is a rabbit polyclonal antibody raised against amino acids 257-300 mapping within a C-terminal cytoplasmic domain of SR-1B of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

SR-1B (H-44) is recommended for detection of serotonin 1B receptor of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

SR-1B (H-44) is also recommended for detection of serotonin 1B receptor in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SR-1B siRNA (h): sc-42223, SR-1B siRNA (m): sc-42224, SR-1B shRNA Plasmid (h): sc-42223-SH, SR-1B shRNA Plasmid (m): sc-42224-SH, SR-1B shRNA (h) Lentiviral Particles: sc-42223-V and SR-1B shRNA (m) Lentiviral Particles: sc-42224-V.

Molecular Weight of SR-1B: 43 kDa.

Positive Controls: Rat brain extract: sc-2392, mouse brain extract: sc-2253 or rat cerebellum extract: sc-2398.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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