

SR-1B (C-19)-R: sc-1460-R

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

1. Cotecchia, S., et al. 1990. Multiple second messenger pathways of α -adrenergic receptor subtypes expressed in eukaryotic cells. *J. Biol. Chem.* 265: 63-69.
2. Hausdorff, W.P., et al. 1990. Two kinases mediate agonist-dependent phosphorylation and desensitization of the β_2 -adrenergic receptor. *Symp. Soc. Exp. Biol.* 44: 225-240.
3. 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.

CHROMOSOMAL LOCATION

Genetic locus: HTR1B (human) mapping to 6q14.1, HTR1F (human) mapping to 3p11.2; Htr1b (mouse) mapping to 9 E1, Htr1f (mouse) mapping to 16 C1.3.

SOURCE

SR-1B (C-19)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus 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.

Blocking peptide available for competition studies, sc-1460 P, (100 μ g 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.

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.

APPLICATIONS

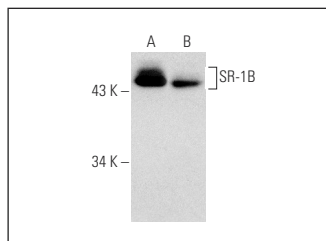
SR-1B (C-19)-R is recommended for detection of SR-1B and, to a lesser extent, SR-1F of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting 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 (C-19)-R is also recommended for detection of serotonin 1B receptor (5-HT1B) and, to a lesser extent, SR-1F in additional species, including equine, canine, bovine and avian.

Molecular Weight of SR-1B: 43 kDa.

Positive Controls: rat brain extract: sc-2392, mouse brain extract: sc-2253 or mouse cerebellum extract: sc-2403.

DATA



SR-1B (C-19)-R: sc-1460-R. Western blot analysis of SR-1B expression in mouse cerebellum (A) and mouse brain (B) tissue extracts.

SELECT PRODUCT CITATIONS

1. Pickard, G.E., et al. 1999. 5-HT1B receptor-mediated presynaptic inhibition of retinal input to the suprachiasmatic nucleus. *J. Neurosci.* 19: 4034-4045.
2. Akin, D., et al. 2002. Involvement of 5-HT1B and 5-HT1D receptors in sumatriptan mediated vasocontractile response in rabbit common carotid artery. *Br. J. Pharmacol.* 136: 177-182.
3. Tachibana, T., et al. 2005. Receptors and transporter for Serotonin in Merkel cell-nerve endings in the rat sinus hair follicle. An immunohistochemical study. *Arch. Histol. Cytol.* 68: 19-28.
4. Siddiqui, E.J., et al. 2006. The effect of Serotonin and Serotonin antagonists on bladder cancer cell proliferation. *BJU Int.* 97: 634-639.
5. Vikman, P., et al. 2006. Gene expression profiling in the human middle cerebral artery after cerebral ischemia. *Eur. J. Neurol.* 13: 1324-1332.
6. Siddiqui, E.J., et al. 2006. The role of Serotonin (5-hydroxytryptamine1A and 1B) receptors in prostate cancer cell proliferation. *J. Urol.* 176: 1648-1653.
7. Delaney, C., et al. 2011. Pulmonary vascular effects of serotonin and selective serotonin reuptake inhibitors in the late-gestation ovine fetus. *Am. J. Physiol. Lung Cell Mol. Physiol.* 301: L937-L944.