SANTA CRUZ BIOTECHNOLOGY, INC.

SR-1B (M-19): sc-1461

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 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. 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.
2. Cotecchia, S., et al. 1990. Multiple second messenger pathways of α-adrenergic receptor subtypes expressed in eukaryotic cells. J. Biol. Chem. 265: 63-69.

CHROMOSOMAL LOCATION

Genetic locus: Htr1b (mouse) mapping to 9 E1.

SOURCE

SR-1B (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SR-1B of mouse 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-1461 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SR-1B (M-19) is recommended for detection of SR-1B of mouse and rat 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).

SR-1B (M-19) is also recommended for detection of SR-1B in additional species, including equine, canine, bovine, porcine and avian.

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

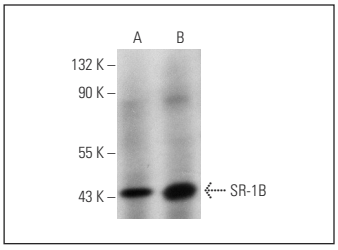
Molecular Weight of SR-1B: 43 kDa.

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

DATA



SR-1B (M-19): sc-1461. Western blot analysis of SR-1B expression in rat 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. Beg, S.A., et al. 2006. ERK 1/2 inhibition attenuates cerebral blood flow reduction and abolishes ET_B and $5\text{-}HT_{1B}$ receptor upregulation after subarachnoid hemorrhage in rat. J. Cereb. Blood Flow Metab. 26: 846-856.
3. Ansar, S., et al. 2007. Cerebrovascular ET_B, $5\text{-}HT_{1B}$, and AT1 receptor upregulation correlates with reduction in regional CBF after subarachnoid hemorrhage. Am. J. Physiol. Heart Circ. Physiol. 293: H3750-H3758.
4. Beg, S.S., et al. 2007. Protein kinase C inhibition prevents upregulation of vascular ET_B and $5\text{-}HT_{1B}$ receptors and reverses cerebral blood flow reduction after subarachnoid haemorrhage in rats. J. Cereb. Blood Flow Metab. 27: 21-32.
5. Morán, A., et al. 2008. Characterization of contractile 5-hydroxytryptamine receptor subtypes in the *in situ* autoperfused kidney in the anaesthetized rat. Eur. J. Pharmacol. 592: 133-137.
6. Morán, A., et al. 2009. Characterization of the contractile 5-hydroxytryptamine receptor in the autoperfused kidney of L-NAME hypertensive rats. Eur. J. Pharmacol. 620: 90-96.
7. Charbit, A.R., et al. 2011. Trigeminocervical complex responses after lesioning dopaminergic A11 nucleus are modified by dopamine and serotonin mechanisms. Pain 152: 2365-2376.

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.