SR-1A (C-19): sc-1459

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: HTR1A (human) mapping to 5q12.3; Htr1a (mouse) mapping to 13 D1.

SOURCE

SR-1A (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SR-1A 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-1459 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SR-1A (C-19) is recommended for detection of SR-1A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

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

Suitable for use as control antibody for SR-1A siRNA (h): sc-36553, SR-1A siRNA (m): sc-36554, SR-1A shRNA Plasmid (h): sc-36553-SH, SR-1A shRNA Plasmid (m): sc-36554-SH, SR-1A shRNA (h) Lentiviral Particles: sc-36553-V and SR-1A shRNA (m) Lentiviral Particles: sc-36554-V.

Molecular Weight of SR-1A: 46 kDa.

Molecular Weight of glycosylated SR-1A: 55-65 kDa.

Positive Controls: Saos-2 cell lysate: sc-2235, Raji whole cell lysate: sc-364236 or Daudi cell lysate: sc-2415.

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.

DATA
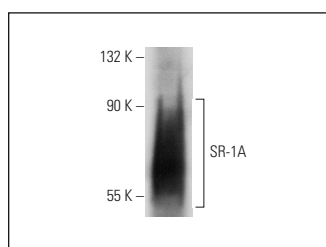
SR-1A (C-19): sc-1459. Western blot analysis of SR-1A expression in Caco-2 whole cell lysate.

SELECT PRODUCT CITATIONS

1. 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.

2. Henderson, J.A. and Bethea, C.L. 2008. Differential effects of ovarian steroids and raloxifene on serotonin 1A and 2C receptor protein expression in macaques. Endocrine 33: 285-293.

3. Noga, B.R., et al. 2009. Locomotor-activated neurons of the cat. I. serotonergic innervation and co-localization of 5-HT7, 5-HT2A, and 5-HT1A receptors in the thoraco-lumbar spinal cord. J. Neurophysiol. 102: 1560-1576.

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.