SANTA CRUZ BIOTECHNOLOGY, INC.

SR-1D (H-70): sc-25644

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. Exper. 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.
3. 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.
4. 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.
5. 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.
6. 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: HTR1D (human) mapping to 1p36.12; Htr1d (mouse) mapping to 4 D3.

SOURCE

SR-1D (H-70) is a rabbit polyclonal antibody raised against amino acids 221-290 of SR-1D 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.

STORAGE

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

APPLICATIONS

SR-1D (H-70) is recommended for detection of SR-1D of mouse, rat and 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).

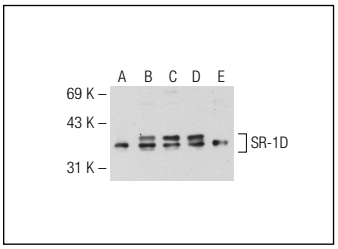
SR-1D (H-70) is also recommended for detection of SR-1D in additional species, including equine, bovine, porcine and avian.

Suitable for use as control antibody for SR-1D siRNA (h): sc-42225, SR-1D siRNA (m): sc-42226, SR-1D shRNA Plasmid (h): sc-42225-SH, SR-1D shRNA Plasmid (m): sc-42226-SH, SR-1D shRNA (h) Lentiviral Particles: sc-42225-V and SR-1D shRNA (m) Lentiviral Particles: sc-42226-V.

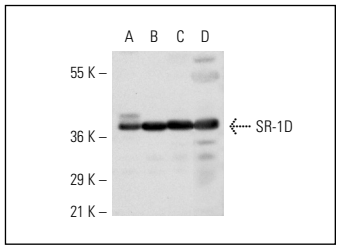
Molecular Weight of SR-1D: 42 kDa.

Positive Controls: mouse brain extract: sc-2253, HeLa whole cell lysate: sc-2200 or SH-SY5Y cell lysate: sc-3812.

DATA



SR-1D (H-70): sc-25644. Western blot analysis of SR-1D expression in 293T (**A**), HeLa (**B**), CCRF-CEM (**C**) and ES-2 (**D**) whole cell lysates and mouse brain tissue extract (**E**).



SR-1D (H-70): sc-25644. Western blot analysis of SR-1D expression in T98G (**A**), SH-SY5Y (**B**) and EOC 13.31 (**C**) whole cell lysates and mouse brain tissue extract (**D**).

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.