

# SR-1D (H-4): sc-398809

## 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.  $\beta$ -adrenergic bound to adrenaline activates adenylyl cyclase, while  $\alpha_2$ -adrenergic receptor bound to adrenaline inhibits adenylyl cyclase. Like the  $\alpha_2$ -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–SR-7 (5HT1-5HT7). 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  $\beta_2$ -adrenergic receptor. *Symp. Soc. Exp. Biol.* 44: 225-240.
2. Cotecchia, S., et al. 1990. Multiple second messenger pathways of  $\alpha$ -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  $\alpha$ -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.

## CHROMOSOMAL LOCATION

Genetic locus: HTR1D (human) mapping to 1p36.12; Htr1d (mouse) mapping to 4 D3.

## SOURCE

SR-1D (H-4) is a mouse monoclonal antibody raised against amino acids 221-290 of SR-1D of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SR-1D (H-4) is available conjugated to agarose (sc-398809 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398809 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398809 PE), fluorescein (sc-398809 FITC), Alexa Fluor® 488 (sc-398809 AF488), Alexa Fluor® 546 (sc-398809 AF546), Alexa Fluor® 594 (sc-398809 AF594) or Alexa Fluor® 647 (sc-398809 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398809 AF680) or Alexa Fluor® 790 (sc-398809 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## 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-4) is recommended for detection of SR-1D of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

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.

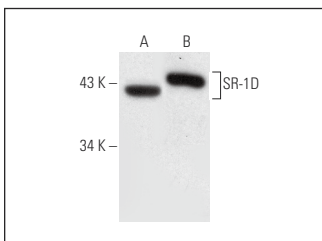
Molecular Weight of SR-1D: 42 kDa.

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

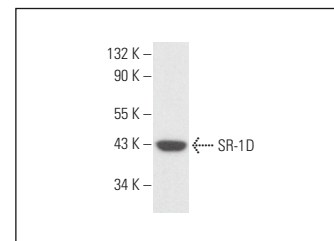
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



SR-1D (H-4): sc-398809. Western blot analysis of SR-1D expression in SH-SY5Y whole cell lysate (A) and mouse brain tissue extract (B).



SR-1D (H-4): sc-398809. Western blot analysis of SR-1D expression in HeLa whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Sefidgari-Abrasi, S., et al. 2021. From the gut to the heart: *L. plantarum* and Inulin administration as a novel approach to control cardiac apoptosis via 5-HT2B and TrkB receptors in diabetes. *Clin. Nutr.* 40: 190-201.

## RESEARCH USE

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

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