

SR-3B (H-9): sc-390642

BACKGROUND

Serotonin is a molecule that functions as a neurotransmitter, a hormone and a mitogen, and it modulates several processes including psychiatric disorders, cardiovascular function and motility of the gastrointestinal tract. Serotonin receptors (also designated 5-hydroxytryptamine or 5-HT receptors) are members of the G protein-coupled receptor family that mediate the effects of serotonin. The serotonin receptors (alternatively designated SR) include SR-1, SR-2, SR-3, SR-4, SR-5, SR-6 and SR-7. The SR-1 receptors are subdivided into SR-1A, B, C, D, E and F receptors, while the SR-2 receptors comprise three subtypes: SR-2A, B and C. SR-3 is divided into SR-3A and SR-3B, a 441 amino acid protein with 41% sequence homology to SR-3A. SR-3B is responsible for fast, depolarizing responses in neurons after activation. The SR-3B protein is expressed in kidney and brain, specifically in hippocampus, thalamus and caudate nucleus, and particularly in amygdala. No expression of SR-3B is detected in heart, placenta, lung, liver, skeletal muscle or pancreas.

REFERENCES

1. Davies, P.A., et al. 1999. The 5-HT_{3B} subunit is a major determinant of serotonin-receptor function. *Nature* 397: 359-363.
2. Dubin, A.E., et al. 1999. The pharmacological and functional characteristics of the serotonin 5-HT_{3A} receptor are specifically modified by a 5-HT_{3B} receptor subunit. *J. Biol. Chem.* 274: 30799-30810.
3. Mott, D.D., et al. 2001. Open probability of homomeric murine 5-HT_{3A} serotonin receptors depends on subunit occupancy. *J. Physiol.* 535: 427-443.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604654. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Kelley, S.P., et al. 2003. A cytoplasmic region determines single-channel conductance in 5-HT₃ receptors. *Nature* 424: 321-324.

CHROMOSOMAL LOCATION

Genetic locus: HTR3B (human) mapping to 11q23.2; Htr3b (mouse) mapping to 9 A5.3.

SOURCE

SR-3B (H-9) is a mouse monoclonal antibody raised against amino acids 168-231 mapping within an internal region of SR-3B of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SR-3B (H-9) is available conjugated to agarose (sc-390642 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390642 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390642 PE), fluorescein (sc-390642 FITC), Alexa Fluor[®] 488 (sc-390642 AF488), Alexa Fluor[®] 546 (sc-390642 AF546), Alexa Fluor[®] 594 (sc-390642 AF594) or Alexa Fluor[®] 647 (sc-390642 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390642 AF680) or Alexa Fluor[®] 790 (sc-390642 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SR-3B (H-9) is recommended for detection of SR-3B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for SR-3B siRNA (h): sc-61612, SR-3B siRNA (m): sc-61613, SR-3B shRNA Plasmid (h): sc-61612-SH, SR-3B shRNA Plasmid (m): sc-61613-SH, SR-3B shRNA (h) Lentiviral Particles: sc-61612-V and SR-3B shRNA (m) Lentiviral Particles: sc-61613-V.

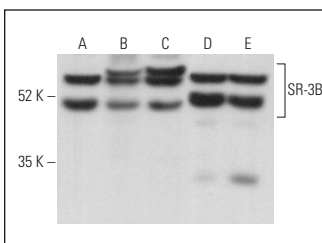
Molecular Weight of SR-3B: 50 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, Caco-2 cell lysate: sc-2262 or IMR-32 cell lysate: sc-2409.

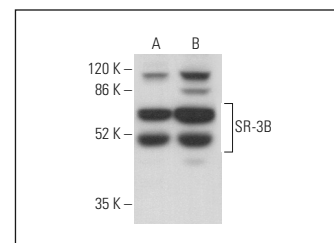
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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-3B (H-9): sc-390642. Western blot analysis of SR-3B expression in C6 (A), Caco-2 (B) and IMR-32 (C) whole cell lysates and mouse brain (D) and rat cerebellum (E) tissue extracts.



SR-3B (H-9): sc-390642. Western blot analysis of SR-3B expression in EOC 20 (A) and TK-1 (B) whole cell lysates.

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.

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