

α_2B -AR (G-9): sc-390430

The Power to Question

BACKGROUND

α_2 -adrenergic receptors are members of the G protein-coupled receptor superfamily. They include three highly homologous subtypes: α_{2A} , α_{2B} , and α_{2C} . These receptors have a critical role in regulating neurotransmitter release from sympathetic nerves and from adrenergic neurons in the central nervous system. α_B -adrenergic receptors (α_{2B} -AR) couple to G_i -protein and induce salt-dependent hypertension in response to catecho-lamines. The carboxy-terminal cytoplasmic domain of α_{2B} -AR can associate with proteins, including the guanine nucleotide exchange factor eIF-2B. α_{2B} -AR transcripts are abundant in rat liver and kidney.

CHROMOSOMAL LOCATION

Genetic locus: ADRA2B (human) mapping to 2q11.1; Adra2b (mouse) mapping to 2 F1.

SOURCE

α_{2B} -AR (G-9) is a mouse monoclonal antibody raised against amino acids 202-297 of α_{2B} -AR of human origin.

PRODUCT

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

α_{2B} -AR (G-9) is available conjugated to agarose (sc-390430 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390430 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390430 PE), fluorescein (sc-390430 FITC), Alexa Fluor® 488 (sc-390430 AF488), Alexa Fluor® 546 (sc-390430 AF546), Alexa Fluor® 594 (sc-390430 AF594) or Alexa Fluor® 647 (sc-390430 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390430 AF680) or Alexa Fluor® 790 (sc-390430 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

α_{2B} -AR (G-9) is recommended for detection of α_{2B} -AR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

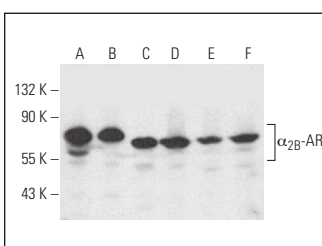
Suitable for use as control antibody for α_{2B} -AR siRNA (h): sc-39864, α_{2B} -AR siRNA (m): sc-39865, α_{2B} -AR shRNA Plasmid (h): sc-39864-SH, α_{2B} -AR shRNA Plasmid (m): sc-39865-SH, α_{2B} -AR shRNA (h) Lentiviral Particles: sc-39864-V and α_{2B} -AR shRNA (m) Lentiviral Particles: sc-39865-V.

Molecular Weight of α_{2B} -AR: 62 kDa.

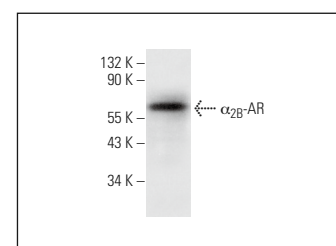
Positive Controls: Hep G2 cell lysate: sc-2227, IMR-32 cell lysate: sc-2409 or MDA-MB-231 cell lysate: sc-2232.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 κ BP-FITC: sc-516140 or m-IgG κ 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

α_{2B} -AR (G-9): sc-390430. Western blot analysis of α_{2B} -AR expression in MDA-MB-231 (A), IMR-32 (B), EOC 20 (C), c4 (D), C6 (E) and KNRK (F) whole cell lysates.



α_{2B} -AR (G-9): 390430. Western blot analysis of α_{2B} -AR expression in Hep G2 whole cell lysate.

SELECT PRODUCT CITATIONS

- Elliott, B., et al. 2019. Essential role of JunD in cell proliferation is mediated via Myc signaling in prostate cancer cells. *Cancer Lett.* 448: 155-167.
- Kitano, T., et al. 2021. Opposing functions of α - and β -adrenoceptors in the formation of processes by cultured astrocytes. *J. Pharmacol. Sci.* 145: 228-240.
- Chen, Z.R., et al. 2023. Dexmedetomidine pretreatment protects against myocardial ischemia/reperfusion injury by activating STAT3 signaling. *Anesth. Analg.* 137: 426-439.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.