SANTA CRUZ BIOTECHNOLOGY, INC.

α_{2B}-AR (C-4): sc-390429

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

α_2-adrenergic receptors are members of the G protein-coupled receptor super family. 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.

REFERENCES

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4. Small, K.M., et al. 2001. Polymorphic deletion of three intracellular acidic residues of the α_{2B}-adrenergic receptor decreases G protein-coupled receptor kinase-mediated phosphorylation and desensitization. J. Biol. Chem. 276: 4917-4922.
5. Madsen, O., et al. 2002. Molecular evolution of the mammalian α_{2B}-adrenergic receptor. Mol. Biol. Evol. 19: 2150-2160.
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7. Kintsurashvili, E., et al. 2003. Central α_{2B}-adrenergic receptor antisense in plasmid vector prolongs reversal of salt-dependent hypertension. J. Hypertens. 21: 961-967.
8. Lin, C.Y., et al. 2003. Conserved motifs in somatostatin, D2-dopamine, and α_{2B}-adrenergic receptors for inhibiting the Na-H exchanger, NHE1. J. Biol. Chem. 278: 15128-15135.
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CHROMOSOMAL LOCATION

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

SOURCE

α_{2B}-AR (C-4) is a mouse monoclonal antibody raised against amino acids 202-297 of α_{2B}-AR of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 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 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.

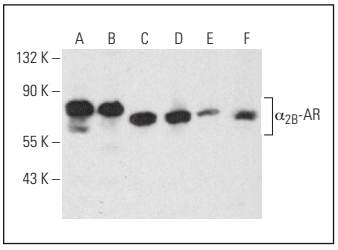
Molecular Weight of α_{2B}-AR: 62 kDa.

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

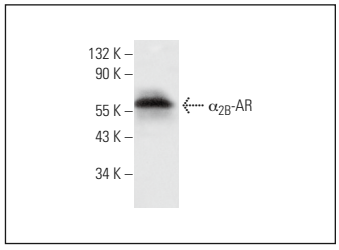
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-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



α_{2B}-AR (C-4): sc-390429. 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 (C-4): sc-390429. Western blot analysis of α_{2B}-AR expression in Hep G2 whole cell lysate.

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.