α1A-AR (4D8): sc-100291

BACKGROUND

α1A-adrenergic receptors (α1A-ARs) mediate actions in the sympathetic nervous system through the binding of the catecholamines, epinephrine and norepinephrine. α1A-AR (previously designated α1C-AR) couples to Go11 and regulates blood pressure due to changes in vascular tone and cardiac output. Alternative splicing of the ADRA1A gene generates four isoforms with distinct C-termini, and the different expression profile of these subtypes produces distinct patterns of activation. α1A-AR transcripts are abundant in heart, brain, liver and prostate. α1A-AR transcript sizes of 6.0, 4.0, 3.0, and 2.0 kb have been detected in liver. Transcripts of 6.0, 4.0, and 3.0 kb have been detected in heart, and transcripts of 6.0 and 4.0 kb have been detected in prostate.

CHROMOSOMAL LOCATION

Genetic locus: ADRA1A (human) mapping to 8p21.2; Adra1a (mouse) mapping to 14 D1.

SOURCE

α1A-AR (4D8) is a mouse monoclonal antibody raised against amino acids 1-28 of α1A-AR of human origin.

PRODUCT

Each vial contains 100 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

α1A-AR (4D8) is recommended for detection of α1A-AR 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for α1A-AR siRNA (h): sc-39858, α1A-AR siRNA (m): sc-39859, α1A-AR shRNA Plasmid (h): sc-39858-CH, α1A-AR shRNA Plasmid (m): sc-39859-CH, α1A-AR shRNA (h) Lentiviral Particles: sc-39858-V and α1A-AR shRNA (m) Lentiviral Particles: sc-39859-V.

Molecular Weight of α1A-AR: 52 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, PC-3 cell lysate: sc-2220 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SUPPORT REAGENTS

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

STORAGE

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

DATA

α1A-AR (4D8): sc-100291. Western blot analysis of α1A-AR expression in HL-60(A), PC-3(B) and Hep G2(C) whole cell lysates and mouse brain (D) and rat brain (E) tissue extracts.

SELECT PRODUCT CITATIONS


PROTOCOLS

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