

α_{1D} -AR (F-12): sc-27099

BACKGROUND

α_{1D} -adrenergic receptors (α_{1D} -ARs) couple to $G_{q/11}$ and participate directly in sympathetic regulation of systemic blood pressure by vasoconstriction. α_{1D} -AR can form hetero-oligomers with α_{1B} receptors. α_{1D} -AR transcripts are abundant in prostate and aorta. α_{1A} adrenergic receptors (α_{1A} -ARs) mediate actions in the sympathetic nervous system through the binding of the catecholamines, epinephrine and norepinephrine. α_{1A} -adrenergic receptors couple to $G_{q/11}$ and regulate blood pressure due to changes in vascular tone and cardiac output. Alternative splicing of this gene generates four isoforms with distinct C-termini, and the different expression profile of these subtypes produces distinct patterns of activation. α_{1A} -AR transcripts are abundant in heart, brain, liver, and prostate. α_{1A} -AR transcript sizes of 6.0, 4.0, 3.0, and 2.0 kb have been detected in liver. α_{1A} -AR transcript sizes of 6.0, 4.0 and 3.0 kb transcripts have been detected in heart, and 6.0 kb and 4.0 kb transcripts have been detected in prostate.

REFERENCES

- Hausdorff, W.P., et al. 1990. Two kinases mediate agonist-dependent phosphorylation and desensitization of the β_2 -adrenergic receptor. *Symp. Soc. Exp. Biol.* 44: 225-240.
- Cotecchia, S., et al. 1990. Multiple second messenger pathways of α -adrenergic receptor subtypes expressed in eukaryotic cells. *J. Biol. Chem.* 265: 63-69.
- Bertin, B., et al. 1992. Functional expression of the human serotonin 5-HT_{1A} receptor in *Escherichia coli*. Ligand binding properties and interaction with recombinant G protein α -subunits. *J. Biol. Chem.* 267: 8200-8206.
- 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.
- Weinberg, D.H., et al. 1994. Cloning, expression and characterization of human α adrenergic receptors α_{1a} , α_{1b} and α_{1c} . *Biochem. Biophys. Res. Commun.* 201: 1296-1304.

CHROMOSOMAL LOCATION

Genetic locus: ADRA1D (human) mapping to 20p13.

SOURCE

α_{1D} -AR (F-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of α_{1D} -AR of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-27099 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

α_{1D} -AR (F-12) is recommended for detection of α_{1D} -AR of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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_{1D} -AR siRNA (h): sc-29620, α_{1D} -AR shRNA Plasmid (h): sc-29620-SH and α_{1D} -AR shRNA (h) Lentiviral Particles: sc-29620-V.

Molecular Weight (predicted) of α_{1D} -AR: 60 kDa.

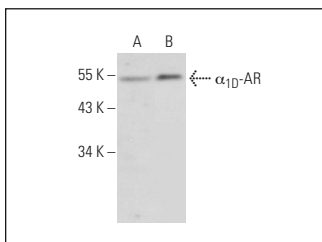
Molecular Weight (observed) of α_{1D} -AR: 47 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, A-431 whole cell lysate: sc-2201 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



α_{1D} -AR (F-12): sc-27099. Western blot analysis of α_{1D} -AR expression in PC-3 (A) and A-431 (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.

MONOS
Satisfaction
Guaranteed

Try α_{1D} -AR (F-10): sc-390884 or α_{1D} -AR (B-6): sc-365559, our highly recommended monoclonal alternatives to α_{1D} -AR (F-12).