SANTA CRUZ BIOTECHNOLOGY, INC.

# $\alpha_{1A}$-AR (C-19): sc-1477

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

$\alpha_{1A}$-adrenergic receptors ($\alpha_{1A}$-AR) mediate actions in the sympathetic nervous system through the binding of the catecholamines, epinephrine and norepinephrine. $\alpha_{1A}$-AR couples to $G_{q/11}$ 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. $\alpha_{1A}$-AR transcripts are abundant in heart, brain, liver and prostate. $\alpha_{1A}$-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

$\alpha_{1A}$-AR (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of $\alpha_{1A}$-AR of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-1477 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

$\alpha_{1A}$-AR (C-19) is recommended for detection of $\alpha_{1A}$ (previously designated $\alpha_{1C}$) adrenergic receptor of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

$\alpha_{1A}$-AR (C-19) is also recommended for detection of $\alpha_{1A}$ (previously designated $\alpha_{1C}$) adrenergic receptor in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for $\alpha_{1A}$-AR siRNA (h): sc-39858, $\alpha_{1A}$-AR siRNA (m): sc-39859, $\alpha_{1A}$-AR shRNA Plasmid (h): sc-39858-SH, $\alpha_{1A}$-AR shRNA Plasmid (m): sc-39859-SH, $\alpha_{1A}$-AR shRNA (h) Lentiviral Particles: sc-39858-V and $\alpha_{1A}$-AR shRNA (m) Lentiviral Particles: sc-39859-V.

Molecular Weight of $\alpha_{1A}$-AR: 52 kDa.

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

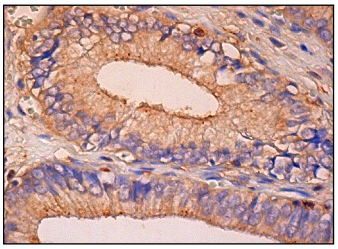
## STORAGE

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.

## DATA



$\alpha_{1A}$-AR (C-19): sc-1477. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS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4. Bhuiyan, M.E., et al. 2009. Complex cardiovascular actions of $\alpha$-adrenergic receptors expressed in the nucleus tractus solitarii of rats. Exp. Physiol. 94: 773-784.
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7. Fan, L.L., et al. 2009. $\alpha_{1D}$-adrenergic receptor insensitivity is associated with alterations in its expression and distribution in cultured vascular myocytes. Acta Pharmacol. Sin. 30: 1585-1593.
8. Lee, J.H., et al. 2011. The diabetes-induced functional and distributional changes of the $\alpha_1$-adrenoceptor of the abdominal aorta and distal mesenteric artery from streptozotocin-induced diabetic rats. Korean J. Anesthesiol. 60: 272-281.
9. Northington, G.M., et al. 2011. Contractile response of human anterior vaginal muscularis in women with and without pelvic organ prolapse. Reprod. Sci. 18: 296-303.