

# Adenosine A1-R (H-40): sc-28995

## BACKGROUND

Adenosine is involved in a variety of processes, including the synthesis of urea, the anti-inflammatory response, and the inhibition of protein synthesis. The Adenosine receptors, including Adenosine A1-R, Adenosine A2A-R, Adenosine A2B-R and Adenosine A3-R, are integral membrane proteins that are members of the G protein-coupled receptor family. Adenosine A1-R mediates ureagenesis in a partially calcium-dependent manner. Adenosine is known to mediate coronary vasodilation via Adenosine A2A-R. Collagen synthesis and total protein synthesis are inhibited in certain cells by Adenosine, acting via the A2B receptors. Activation of Adenosine A3-R inhibits the induction of TNF $\alpha$  and blocks the endotoxin CD14 receptor signal transduction pathway.

## REFERENCES

1. Mahan, L.C., et al. 1991. Cloning and expression of an A1 adenosine receptor from rat brain. *Mol. Pharmacol.* 40: 1-7.
2. Furlong, T.J., et al. 1992. Molecular characterization of a human brain adenosine A2 receptor. *Brain Res. Mol. Brain Res.* 15: 62-66.

## CHROMOSOMAL LOCATION

Genetic locus: ADORA1 (human) mapping to 1q32.1; Adora1 (mouse) mapping to 1 E4.

## SOURCE

Adenosine A1-R (H-40) is a rabbit polyclonal antibody raised against amino acids 287-326 mapping at the C-terminus of Adenosine A1-R of human origin.

## PRODUCT

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

## RESEARCH USE

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

## APPLICATIONS

Adenosine A1-R (H-40) is recommended for detection of Adenosine A1-R of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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). Adenosine A1-R (H-40) is also recommended for detection of Adenosine A1-R in additional species, including equine, canine, bovine and porcine. Suitable for use as control antibody for Adenosine A1-R siRNA (h): sc-39848, Adenosine A1-R siRNA (m): sc-39849, Adenosine A1-R shRNA Plasmid (h): sc-39848-SH, Adenosine A1-R shRNA Plasmid (m): sc-39849-SH, Adenosine A1-R shRNA (h) Lentiviral Particles: sc-39848-V and Adenosine A1-R shRNA (m) Lentiviral Particles: sc-39849-V.

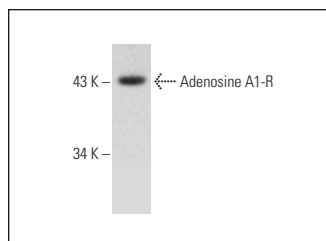
Molecular Weight of Adenosine A1-R: 37 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Adenosine A1-R (H-40): sc-28995. Western blot analysis of Adenosine A1-R expression in K-562 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Zizzo, M.G., et al. 2009. A1 receptors mediate adenosine inhibitory effects in mouse ileum via activation of potassium channels. *Life Sci.* 84: 772-778.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **Adenosine A1-R (D-5): sc-514337** or **Adenosine A1-R (HA1): sc-66193**, our highly recommended monoclonal alternatives to Adenosine A1-R (H-40).