

# Adenosine A1-R (D-5): sc-514337

## 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

- Mahan, L.C., et al. 1991. Cloning and expression of an A1 Adenosine receptor from rat brain. *Mol. Pharmacol.* 40: 1-7.
- Furlong, T.J., et al. 1992. Molecular characterization of a human brain Adenosine A2 receptor. *Brain Res. Mol. Brain Res.* 15: 62-66.
- Pierce, K.D., et al. 1992. Molecular cloning and expression of an Adenosine A2B receptor from human brain. *Biochem. Biophys. Res. Commun.* 187: 86-93.
- Salvatore, C.A., et al. 1993. Molecular cloning and characterization of the human A3 Adenosine receptor. *Proc. Natl. Acad. Sci. USA* 90: 10365-10369.
- McWhinney, C.D., et al. 1996. Activation of Adenosine A3 receptors on macrophages inhibits tumor necrosis factor- $\alpha$ . *Eur. J. Pharmacol.* 310: 209-216.
- Guinberg, R., et al. 1997. Ca<sup>2+</sup> dependence of the response of three Adenosine type receptors in rat hepatocytes. *Eur. J. Pharmacol.* 340: 243-247.

## CHROMOSOMAL LOCATION

Genetic locus: ADORA1 (human) mapping to 1q32.1.

## SOURCE

Adenosine A1-R (D-5) is a mouse monoclonal 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<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Adenosine A1-R (D-5) is available conjugated to agarose (sc-514337 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514337 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514337 PE), fluorescein (sc-514337 FITC), Alexa Fluor<sup>®</sup> 488 (sc-514337 AF488), Alexa Fluor<sup>®</sup> 546 (sc-514337 AF546), Alexa Fluor<sup>®</sup> 594 (sc-514337 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-514337 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-514337 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-514337 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Adenosine A1-R (D-5) is recommended for detection of Adenosine A1-R of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Adenosine A1-R siRNA (h): sc-39848, Adenosine A1-R shRNA Plasmid (h): sc-39848-SH and Adenosine A1-R shRNA (h) Lentiviral Particles: sc-39848-V.

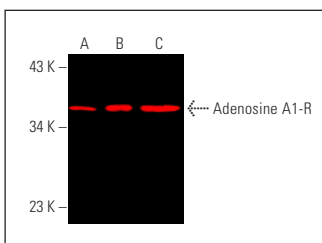
Molecular Weight of Adenosine A1-R: 37 kDa.

Positive Controls: Adenosine A1-R (h): 293T Lysate: sc-171531, MCF7 whole cell lysate: sc-2206 or K-562 whole cell lysate: sc-2203.

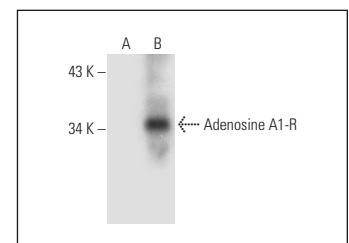
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



Adenosine A1-R (D-5) Alexa Fluor<sup>®</sup> 790: sc-514337 AF790. Direct near-infrared western blot analysis of Adenosine A1-R expression in MCF7 (A), K-562 (B) and U-2 OS (C) whole cell lysates. Blocked with UltraCruz<sup>®</sup> Blocking Reagent: sc-516214.



Adenosine A1-R (D-5): sc-514337. Western blot analysis of Adenosine A1-R expression in non-transfected: sc-117752 (A) and human Adenosine A1-R transfected: sc-171531 (B) 293T 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.