SANTA CRUZ BIOTECHNOLOGY, INC.

Adenosine A2B-R (N-19): sc-7506

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 TNFα 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.
3. 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.
4. Salvatore, C.A., et al. 1993. Molecular cloning and characterization of the human A3 adenosine receptor. Proc. Natl. Acad. Sci. USA 90: 10365-10369.
5. McWhinney, C.D., et al. 1996. Activaton of adenosine A3 receptors on macrophages inhibits tumor necrosis factor-α. Eur. J. Pharmacol. 310: 209-216.

CHROMOSOMAL LOCATION

Genetic locus: ADORA2B (human) mapping to 17p12; Adora2b (mouse) mapping to 11 B2.

SOURCE

Adenosine A2B-R (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Adenosine A2B-R 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-7506 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Adenosine A2B-R (N-19) is recommended for detection of Adenosine A2B-R 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)], 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 A2B-R (N-19) is also recommended for detection of Adenosine A2B-R in additional species, including equine and canine.

Suitable for use as control antibody for Adenosine A2B-R siRNA (h): sc-29642, Adenosine A2B-R siRNA (m): sc-29643, Adenosine A2B-R shRNA Plasmid (h): sc-29642-SH, Adenosine A2B-R shRNA Plasmid (m): sc-29643-SH, Adenosine A2B-R shRNA (h) Lentiviral Particles: sc-29642-V and Adenosine A2B-R shRNA (m) Lentiviral Particles: sc-29643-V.

Molecular Weight (predicted) of Adenosine A2B-R: 36 kDa.

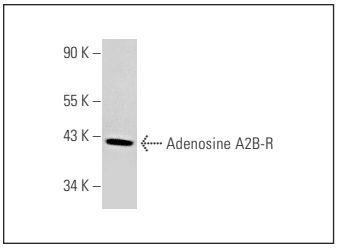
Molecular Weight (observed) of Adenosine A2B-R: 45 kDa.

Pocitive Controls: HT-29 whole cell lysate: sc-364232.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



Adenosine A2B-R (N-19): sc-7506. Western blot analysis of Adenosine A2B-R expression in HT-29 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Nguyen, D.K., et al. 2003. Th1 cytokines regulate adenosine receptors and their downstream signaling elements in human microvascular endothelial cells. J. Immunol. 171: 3991-3998.
2. Desrosiers, M.D., et al. 2007. Adenosine deamination sustains dendritic cell activation in inflammation. J. Immunol. 179: 1884-1892.