

Adenosine A2B-R (R-20): sc-7507

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. The A1-R protein mediates ureagenesis in a partially calcium-dependent manner. Adenosine is known to mediate coronary vasodilation via the A2A-R receptor. Collagen synthesis and total protein synthesis are inhibited in certain cells by adenosine, acting via the A2B receptors. Activation of the A3-R receptor inhibits the induction of the cytokine TNF α 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: ADORA2B (human) mapping to 17p12; Adora2b (mouse) mapping to 11 B2.

SOURCE

Adenosine A2B-R (R-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Adenosine A2B-R of rat 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-7507 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Adenosine A2B-R (R-20) 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 μ g per 100-500 μ 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 A2B-R siRNA (h): sc-29642, Adenosine A2B-R siRNA (m): sc-29643, Adenosine A2B-R siRNA (r): sc-270035, Adenosine A2B-R shRNA Plasmid (h): sc-29642-SH, Adenosine A2B-R shRNA Plasmid (m): sc-29643-SH, Adenosine A2B-R shRNA Plasmid (r): sc-270035-SH, Adenosine A2B-R shRNA (h) Lentiviral Particles: sc-29642-V, Adenosine A2B-R shRNA (m) Lentiviral Particles: sc-29643-V and Adenosine A2B-R shRNA (r) Lentiviral Particles: sc-270035-V.

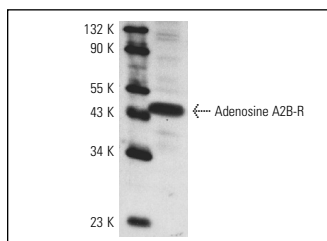
Molecular Weight of Adenosine A2B-R: 50-55 kDa.

Positive Controls: LS1034 whole cell lysate.

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 (R-20): sc-7507. Western blot analysis of Adenosine A2B-receptor expression in LS1034 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Németh, Z.H., et al. 2005. Adenosine augments IL-10 production by macrophages through an A2B receptor-mediated posttranscriptional mechanism. *J. Immunol.* 175: 8260-8270.
2. Gebremedhin, D., et al. 2010. Adenosine can mediate its actions through generation of reactive oxygen species. *J. Cereb. Blood Flow Metab.* 30: 1777-1790.
3. Carlsson, S.K., et al. 2010. Adenosine A2 receptor presence and synergy with cholinergic stimulation in rabbit lacrimal gland. *Curr. Eye Res.* 35: 466-474.

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 or our catalog for detailed protocols and support products.