

Adenosine A_{2A}-R (C-20): sc-7502

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 A_{2A}-R, adenosine A_{2B}-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 A_{2A}-R receptor. Collagen synthesis and total protein synthesis are inhibited in certain cells by adenosine, acting via the A_{2B} receptors. Activation of the A₃-R receptor inhibits the induction of the cytokine TNF α and blocks the endotoxin CD14 receptor signal transduction pathway.

CHROMOSOMAL LOCATION

Genetic locus: ADORA2A (human) mapping to 22q11.23.

SOURCE

Adenosine A_{2A}-R (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Adenosine A_{2A}-R of human 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-7502 P, (100 μ g 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Adenosine A_{2A}-R (C-20) is recommended for detection of Adenosine A_{2A}-R of 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 A_{2A}-R siRNA (h): sc-39850, Adenosine A_{2A}-R shRNA Plasmid (h): sc-39850-SH and Adenosine A_{2A}-R shRNA (h) Lentiviral Particles: sc-39850-V.

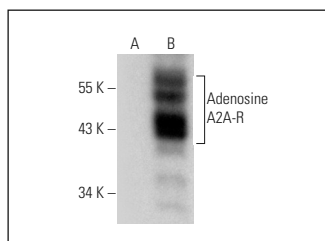
Molecular Weight of Adenosine A_{2A}-R: 45 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or Adenosine A_{2A}-R (h): 293T Lysate: sc-127942.

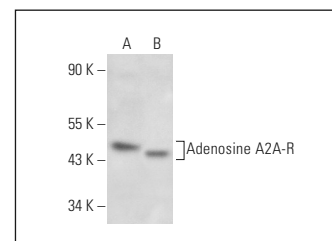
RECOMMENDED SECONDARY REAGENTS

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 A_{2A}-R (C-20): sc-7502. Western blot analysis of Adenosine A_{2A}-R expression in non-transfected: sc-117752 (A) and human Adenosine A_{2A}-R transfected: sc-127942 (B) 293T whole cell lysates.



Adenosine A_{2A}-R (C-20): sc-7502. Western blot analysis of Adenosine A_{2A}-R expression in HeLa (A) and Hep G2 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lynge, J., et al. 2000. Distribution of adenosine A₁, A_{2A} and A_{2B} receptors in human skeletal muscle. *Acta Physiol. Scand.* 169: 283-290.
2. Rodrigues, R.J., et al. 2005. Co-localization and functional interaction between adenosine A and metabotropic group 5 receptors in glutamatergic nerve terminals of the rat striatum. *J. Neurochem.* 92: 433-441.
3. Rebola, N, et al. 2005. Long-term effect of convulsive behavior on the density of adenosine A₁ and A_{2A} receptors in the rat cerebral cortex. *Epilepsia* 5: 159-165.
4. Gebremedhin, D., et al. 2010. Adenosine can mediate its actions through generation of reactive oxygen species. *J. Cereb. Blood Flow Metab.* 30: 1777-1790.
5. Mills, J.H., et al. 2011. Human brain endothelial cells are responsive to adenosine receptor activation. *Purinergic Signal.* 7: 265-273.

RESEARCH USE

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

MONOS
Satisfaction
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Try **Adenosine A_{2A}-R (7F6-G5-A2): sc-32261** or **Adenosine A_{2A}-R (F-10): sc-365235**, our highly recommended monoclonal alternatives to Adenosine A_{2A}-R (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Adenosine A_{2A}-R (7F6-G5-A2): sc-32261**.