SANTA CRUZ BIOTECHNOLOGY, INC.

Adenosine A2A-R (h): 293T Lysate: sc-127942

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

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3. Salvatore, C.A., et al. 1993. Molecular cloning and characterization of the human A3 Adenosine receptor. Proc. Natl. Acad. Sci. USA 90: 10365-10369.
4. Guinzberg, R., et al. 1997. Ca^{2+} dependence of the response of three adenosine type receptors in rat hepatocytes. Eur. J. Pharmacol. 340: 243-247.
5. Belardinelli, L., et al. 1998. The A2A Adenosine receptor mediates coronary vasodilation. J. Pharmacol. Exp. Ther. 284: 1066-1073.
6. Rosin, D.L., et al. 1998. Immunohistochemical localization of Adenosine A2A receptors in the rat central nervous system. J. Comp. Neurol. 401: 163-186.
7. Koshiba, M., et al. 1999. Patterns of A2A extracellular adenosine receptor expression in different functional subsets of human peripheral T cells. Flow cytometry studies with anti-A2A receptor monoclonal antibodies. Mol. Pharmacol. 55: 614-624.
8. Hettinger, B.D., et al. 2001. Ultrastructural localization of Adenosine A2A receptors suggests multiple cellular sites for modulation of GABAergic neurons in rat striatum. J. Comp. Neurol. 431: 331-346.
9. Rosin, D.L., et al. 2003. Anatomy of adenosine A2A receptors in brain: morphological substrates for integration of striatal function. Neurology 61: S12-S18.

CHROMOSOMAL LOCATION

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

PRODUCT

Adenosine A2A-R (h): 293T Lysate represents a lysate of human Adenosine A2A-R transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Adenosine A2A-R (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Adenosine A2A-R antibodies. Recommended use: 10-20 µl per lane.

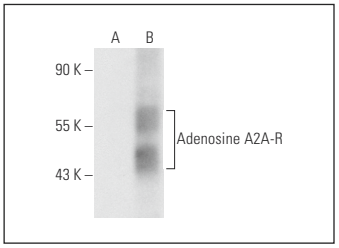
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Adenosine A2A-R (5H30): sc-70321 is recommended as a positive control antibody for Western Blot analysis of enhanced human Adenosine A2A-R expression in Adenosine A2A-R transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Adenosine A2A-R (5H30): sc-70321. Western blot analysis of Adenosine A2A-R expression in non-transfected: sc-117752 (**A**) and human Adenosine A2A-R transfected: sc-127942 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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