



Adenosine A2A-R (h): 293 Lysate: sc-113350

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.
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. Guinberg, R., et al. 1997. Ca²⁺ 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 μ g protein in 200 μ l SDS-PAGE buffer.

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 μ l per lane.

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

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.

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.