

Adenosine A3-R (C-17): sc-7508

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: ADORA3 (human) mapping to 1p13.2.

SOURCE

Adenosine A3-R (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Adenosine A3-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-7508 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Adenosine A3-R (C-17) is recommended for detection of Adenosine A3-R of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 A3-R siRNA (h): sc-39854, Adenosine A3-R shRNA Plasmid (h): sc-39854-SH and Adenosine A3-R shRNA (h) Lentiviral Particles: sc-39854-V.

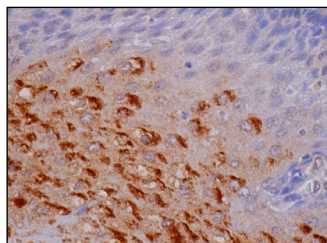
Molecular Weight of Adenosine A3-R: 44/52/66 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SH-SY5Y cell lysate: sc-3812 or T98G cell lysate: sc-2294.

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) 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. 3) Immunohistochemistry: use ImmunoCruz[™]: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Adenosine A3-R (C-17): sc-7508. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

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. Pawelczyk, T., et al. 2005. Region-specific alterations of adenosine receptors expression level in kidney of diabetic rat. *Am. J. Pathol.* 167: 315-325.
3. Grden, M., et al. 2005. Altered expression of adenosine receptors in heart of diabetic rat. *J. Physiol. Pharmacol.* 56: 587-597.
4. Grden, M., et al. 2006. Expression of adenosine receptors in cardiac fibroblasts as a function of Insulin and glucose level. *Arch. Biochem. Biophys.* 455: 10-17.
5. Grden, M., et al. 2007. Diabetes-induced alterations of adenosine receptors expression level in rat liver. *Exp. Mol. Pathol.* 83: 392-398.
6. Barczyk, K., et al. 2010. Glucocorticoids promote survival of anti-inflammatory macrophages via stimulation of adenosine receptor A3. *Blood* 116: 446-455.
7. Mills, J.H., et al. 2011. Human brain endothelial cells are responsive to adenosine receptor activation. *Purinergic Signal.* 7: 265-273.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.