

Adenosine A2A-R (5H30): sc-70321

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 TNF α and blocks the endotoxin CD14 receptor signal transduction pathway.

CHROMOSOMAL LOCATION

Genetic locus: ADORA2A (human) mapping to 22q11.23; Adora2a (mouse) mapping to 10 C1.

SOURCE

Adenosine A2A-R (5H30) is a mouse monoclonal antibody raised against full length human recombinant Adenosine A2A receptor, epitope mapping to the third intracellular loop.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Adenosine A2A-R (5H30) is available conjugated to either phycoerythrin (sc-70321 PE) or fluorescein (sc-70321 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

STORAGE

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

APPLICATIONS

Adenosine A2A-R (5H30) is recommended for detection of Adenosine A2A-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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 μ g per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Adenosine A2A-R siRNA (h): sc-39850, Adenosine A2A-R siRNA (m): sc-39851, Adenosine A2A-R shRNA Plasmid (h): sc-39850-SH, Adenosine A2A-R shRNA Plasmid (m): sc-39851-SH, Adenosine A2A-R shRNA (h) Lentiviral Particles: sc-39850-V and Adenosine A2A-R shRNA (m) Lentiviral Particles: sc-39851-V.

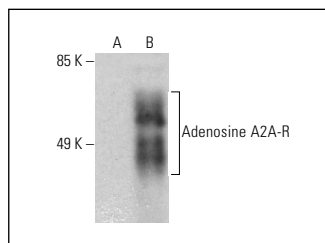
Molecular Weight of Adenosine A2A-R: 45 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, mouse brain extract: sc-2253 or Adenosine A2A-R (h): 293T Lysate: sc-127942.

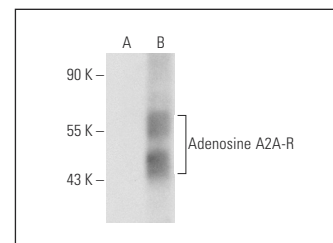
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

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.



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.

SELECT PRODUCT CITATIONS


- Li, P., et al. 2015. Optogenetic activation of intracellular Adenosine A2A receptor signaling in the hippocampus is sufficient to trigger CREB phosphorylation and impair memory. *Mol. Psychiatry* 20: 1339-1349.
- Queiroga, C.S., et al. 2016. Paracrine effect of carbon monoxide-astrocytes promote neuroprotection through purinergic signaling in mice. *J. Cell Sci.* 129: 3178-3188.

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.



See **Adenosine A2A-R (7F6-G5-A2): sc-32261** for Adenosine A2A-R antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.