

Adenosine A2A-R (F-10): sc-365235

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.

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

SOURCE

Adenosine A2A-R (F-10) is a mouse monoclonal antibody raised against amino acids 331-412 mapping within a C-terminal cytoplasmic domain of Adenosine A2A-R of human origin.

PRODUCT

Each vial contains 200 μ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Adenosine A2A-R (F-10) is available conjugated to Alexa Fluor® 488 (sc-365235 AF488), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

Adenosine A2A-R (F-10) is recommended for detection of Adenosine A2A-R of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) 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.

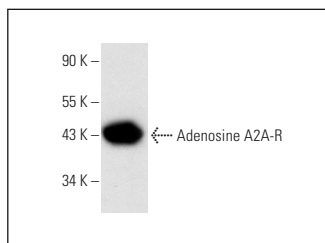
Molecular Weight of Adenosine A2A-R: 45 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812 or mouse brain extract: sc-2253.

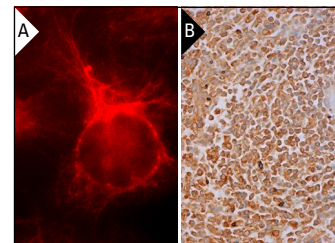
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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 Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Adenosine A2A-R (F-10): sc-365235. Western blot analysis of Adenosine A2A-R expression in SH-SY5Y whole cell lysate.



Adenosine A2A-R (F-10): sc-365235. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in white pulp and cells in red pulp (B).

SELECT PRODUCT CITATIONS

1. Fan, Y., et al. 2022. 7-methylxanthine influences the behavior of ADORA2A-DRD2 heterodimers in human retinal pigment epithelial cells. *Ophthalmic Res.* E-published.

STORAGE

Store at 4° C, **DO NOT FREEZE** Stable for one year from the date of shipment. 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.

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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.