

### Mouse Monoclonal antibody anti-human A2AR

#Cat: NB-19-0002 Size: 100 uL

### Description

Adenosine is an endogenous nucleoside released from cells by facilitated diffusion and is also produced extracellularly by degradation of ATP. Adenosine receptors are subdivided into four G-coupled protein receptors subtypes (A1, A2A, A2B and A3) depending on their pharmacological properties to exert numerous effects on various tissues including the central nervous system.

Most of the anti-inflammatory effects of adenosine have been assigned to the A2A receptor subtype (A2AR).

A2AR is expressed in many immune and inflammatory cells and is up-regulated by T- helper cell type 1 cytokines. Because changes of peripheral A2AR reflect changes that occur at the injured tissue. A2AR assay appears as a valuable marker for monitoring treatment in patients with inflammatory cells infiltrating the failing organ.

#### **Product Information**

Host:	Mouse
Applications:	ELISA, WB
Reactivity:	Human
Clonality:	Monoclonal
Clone ID:	ADONIS
Conjugation:	Unconjugated
Isotype:	lgM
Formulation:	Antibody obtained by ammonium sulphate precipitation.
Constituent:	PBS pH 7.4
Concentration:	>1 mg/mL (exact concentration is lot-dependent)
Storage Instruction:	For long term storage store at -20°C in small aliquots to prevent freeze-
	thaw cycles.
Target	
Protein Name:	A2A receptor subtype (A2AR)

### Applications

Immunogen:

This antibody is recommended for detection of A2A receptor subtype (A2AR) of human origin by ELISA, Western Blotting. For functional activity, a custom size azide-free is available.

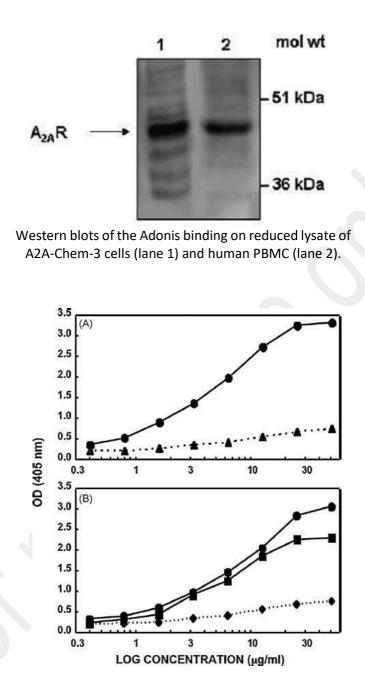
C-Terminal part of second extracellular loop of the A2A receptor

#### Precaution

**For professional users.** Proper handling of this product as with any product derived from biological sources according to local and applicable regulations.







Dose-response curves of Adonis binding to: (A) the immunogen peptide, uncoated wells served as blanks and

(B) glutaraldehyde fixed A2A-Chem-3 cells (circle) and normal human PBMC (square), glutaraldehydetreated uncoated wells (lozenge) served as blanks. Results are given in optical density read at 405nm and are the mean values of duplicates.



#### References

# Low basal expression of A2A adenosine receptors and increase in adenosine plasma concentration are associated with positive exercise stress testing.

Guieu R, Kipson N, Ruf J, Fournier N, Laine M, Foucher MC, Fromonot J, Mottola G, Bruzzese L, Boussuges A, Fenouillet E, Bonello L, Paganelli F. Int J Cardiol. 2015 Feb 1;180:15-7

### NF-kB enhances hypoxia-driven T-cell immunosuppression via upregulation of adenosine A2A receptors.

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#### A2A adenosine receptor function in patients with vasovagal syncope.

Franceschi F., By Y., Peyrousse E., Fromonot J., Gerolami V., Kipson N., Boussuges A., Brignole M., Fenouillet E., Deharo J. C., Ruf J., Guieu R. Europace. 2013 Sep;15(9):1328-32.

## Adenosine plasma level and A2A adenosine receptor expression: correlation with laboratory tests in patients with neurally mediated syncope.

Deharo JC, Mechulan A, Giorgi R, Franceschi F, Prevot S, Peyrouse E, Condo J, By Y, Ruf J, Brignole M, Guieu R. Heart. 2012 Jun;98(11):855-9.

## Fall in oxygen tension of culture medium stimulates the adenosinergic signalling of a human T cell line.

By Y, Jacquin L, Franceschi F, Durand-Gorde JM, Condo J, Michelet P, Guieu R, Ruf J. Purinergic Signal. 2012 Dec;8(4):661-7.

#### Search of adenosine A2A spare receptors on peripheral human lymphocytes.

Jacquin L., Franceschi F., By Y., Durand-Gorde J. M., Condo J., Deharo J. C., Michelet P., Fenouillet E., Guieu R., Ruf J. FEBS Open Bio. 2012 Nov 17;3:1-5.

### Intracerebroventricular injection of an agonist-like monoclonal antibody to adenosine A(2A) receptor has antinociceptive effects in mice.

By Y, Condo J, Durand-Gorde JM, Lejeune PJ, Mallet B, Guieu R, Ruf J. J Neuroimmunol. 2011 Jan;230(1-2):178-82.

# Monoclonal antibody-assisted stimulation of adenosine A2A receptors induces simultaneous downregulation of CXCR4 and CCR5 on CD4+ T-cells.

By Y, Durand-Gorde JM, Condo J, Lejeune PJ, Fenouillet E, Guieu R, Ruf J. Hum Immunol. 2010 Nov;71(11):1073-6.

### Production of an agonist-like monoclonal antibody to the human A2A receptor of adenosine for clinical use.

By Y., Durand-Gorde J-M., Condo J., Lejeune P-J., Mallet B., Carayon P., Guieu R., Ruf J. Molecular immunology. 2009 (46) : 400-405

#### For reference only