

## PRODUCT INFORMATION

<b>Target</b>	ADORA2A
<b>Synonyms</b>	A2aR; ADORA2; RDC8
<b>Description</b>	Human ADORA2A full length protein membrane nanoparticles (MNPs)
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	P29274
<b>Expression Host</b>	HEK293
<b>Protein Families</b>	GPCR
<b>Protein Pathways</b>	Calcium signaling pathway, Neuroactive ligand-receptor interaction, Vascular smooth muscle contraction
<b>Molecular Weight</b>	The human full length ADORA2A protein has a MW of 44.7 kDa
<b>Formulation &amp; Reconstitution</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
<b>Storage &amp; Shipping</b>	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
<b>Background</b>	A member of the guanine nucleotide-binding protein (G protein)-coupled receptor (GPCR) superfamily, which is subdivided into classes and subtypes. The receptors are seven-pass transmembrane proteins that respond to extracellular cues and activate intracellular signal transduction pathways. This protein, an adenosine receptor of A2A subtype, uses adenosine as the preferred endogenous agonist and preferentially interacts with the G(s) and G(olf) family of G proteins to increase intracellular cAMP levels. It plays an important role in many biological functions, such as cardiac rhythm and circulation, cerebral and renal blood flow, immune function, pain regulation, and sleep. It has been implicated in pathophysiological conditions such as inflammatory diseases and neurodegenerative disorders. Alternative splicing results in multiple transcript variants. A read-through transcript composed of the upstream SPECC1L (sperm antigen with calponin homology and coiled-coil domains 1-like) and ADORA2A (adenosine A2a receptor) gene sequence has been identified, but it is thought to be non-coding.
<b>Usage</b>	Research use only
<b>Conjugate</b>	Unconjugated



## ELISA assay to evaluate ADORA2A-MNPs

### 0.5 $\mu$ g Human ADORA2A-MNPs per well

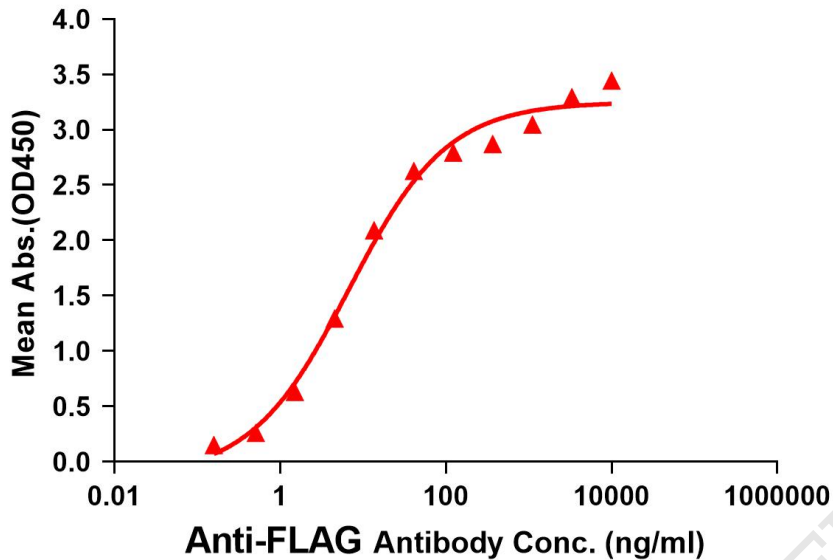


Figure 1. Elisa plates were pre-coated with 0.5 $\mu$ g/per well purified human ADORA2A full length membrane nanoparticles. Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC<sub>50</sub> for anti-Flag monoclonal antibody binding with ADORA2A full length membrane nanoparticles is 6.796ng/ml.

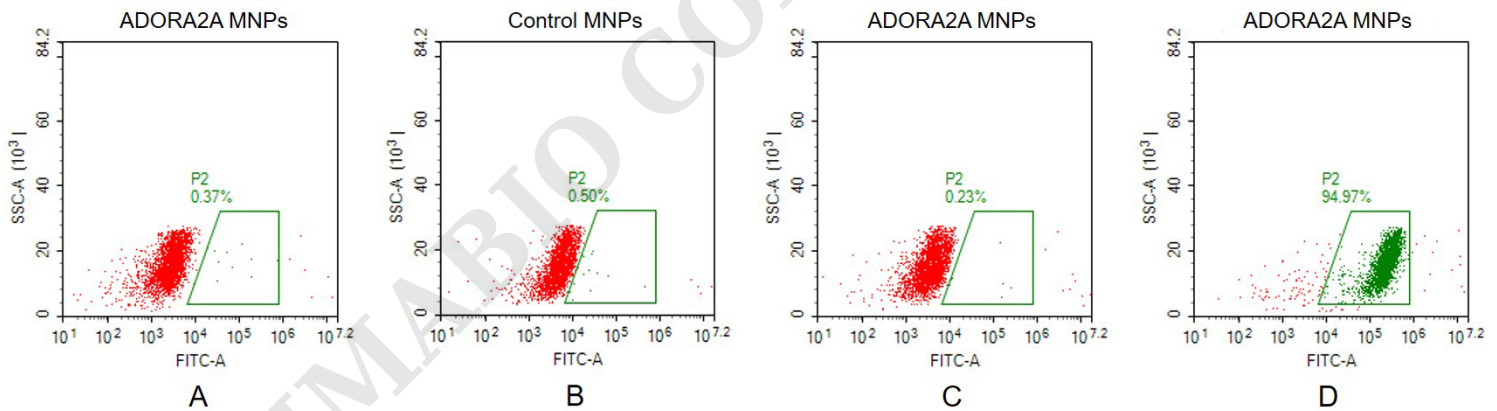


Figure 2. FACS analysis of ADORA2A MNPs A. Negative Control 1: ADORA2A full length membrane nanoparticles samples were stained only with Goat anti-mouse IgG 488 secondary antibody. B. Negative Control 2: Control membrane nanoparticles samples were stained with anti-ADORA2A antibody (R&D systems, MAB9497R) at 2 $\mu$ g/mL, followed by Goat anti-mouse IgG 488 secondary antibody. C. Negative Control 3: ADORA2A full length membrane nanoparticles samples were stained with anti-His antibody (an irrelevant antibody) at 2 $\mu$ g/mL, followed by Goat anti-mouse IgG 488 secondary antibody. D. ADORA2A full length membrane nanoparticles samples were stained with anti-ADORA2A antibody (R&D systems, MAB9497R) at 2 $\mu$ g/mL, followed by Goat anti-mouse IgG 488 secondary antibody.

