

PRODUCT INFORMATION

Tag	C-Flag&Strep Tag
Expression Host	HEK293
Target	ADORA2A
Synonyms	A2aR; ADORA2; RDC8
Description	Human ADORA2A-Strep full length protein-synthetic nanodisc
Uniprot ID	P29274
Protein Families	Druggable Genome, GPCR, Transmembrane
Protein Pathways	Calcium signaling pathway, Neuroactive ligand-receptor interaction, Vascular smooth muscle contraction
Molecular Weight	The human full length ADORA2A-Strep protein has a MW of 44.7 kDa
Delivery	In Stock
Formulation & Reconstitution	Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions. Do not use solvents with a pH below 6.5 or those containing high concentrations of divalent metal ions (greater than 5 mM) in subsequent experiments.
Sterility	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 µm) prior to use.
Storage&Shipping	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.
Background	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.
Usage	Research use only
Conjugate	Unconjugated



ELISA assay to evaluate ADORA2A-Strep-Nanodisc 0.2 μ g Human ADORA2A-Strep-Nanodisc per well

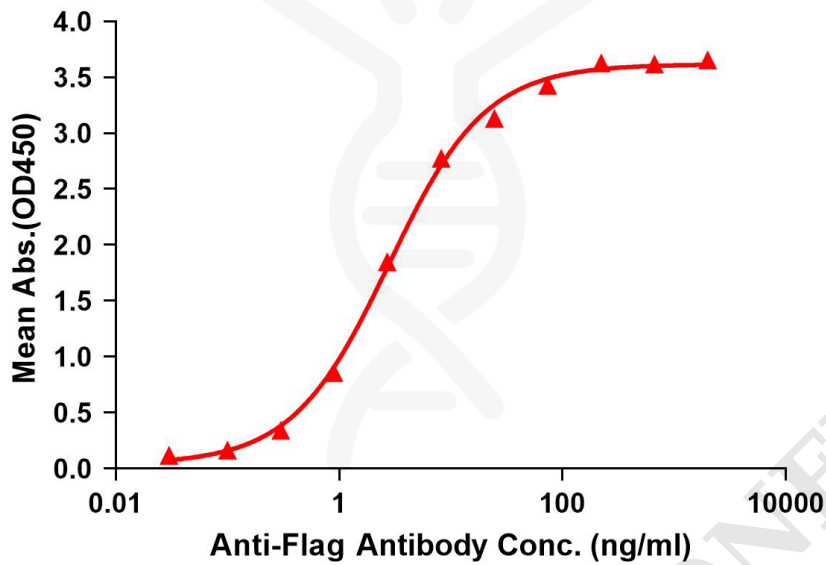


Figure 1. Elisa plates were pre-coated with C-Flag&Strep Tag ADORA2A-Strep-Nanodisc (0.2 μ g/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with ADORA2A-Strep-nanodisc is 2.795ng/ml.

kDa M R

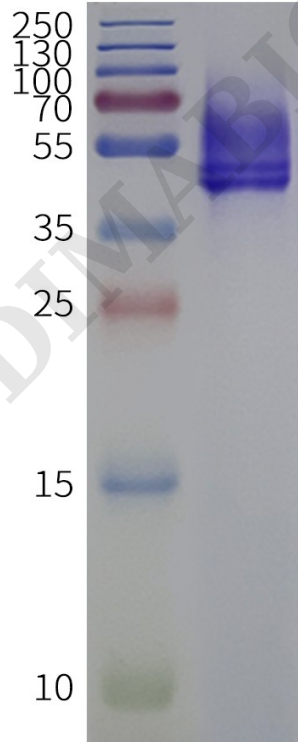


Figure 2. Human ADORA2A-Strep-Nanodisc, C-Flag&Strep Tag on SDS-PAGE

