

Human ADORA2A Protein, His Tag (Detergent, Inhibitor added)

Catalog # ADA-H52H5



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Synonym

ADORA2A, adenosine A2a receptor, A2aR, ADORA2, RDC8

Source

Human ADORA2A Protein, His Tag(ADA-H52H5) is expressed from human 293 cells (HEK293). It contains AA Met 1 - Leu 208 & Arg 222 - Ser 412 (Accession # [P29274-1](#)).

Predicted N-terminus: Met 1

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 63.3 kDa. The protein migrates as 45-47 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

This product is not suitable for cell based experiments due to cytotoxicity of DDM.

DDM and CHS are INDISPENSABLE to keep membrane protein soluble and active, under no circumstance should you remove DDM and CHS.

DDM/CHS buffer (DC-11) is sold separately and not included in protein, and please contact us if you need the buffer.

If glycerol is not compatible to your application, remove glycerol just before immediate experiment, and NEVER store glycerol-free protein solution.

Supplied as 0.2 µm filtered solution in 50 mM HEPES, 150 mM NaCl, DDM, CHS, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

Storage

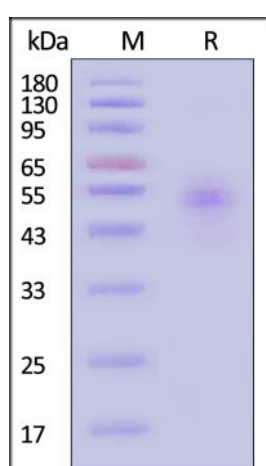
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

**The DDM/CHS buffer (Cat. No. [DC-11](#)) is sold separately and not included in protein, you can follow [this link](#) for product information.

SDS-PAGE



Human ADORA2A Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

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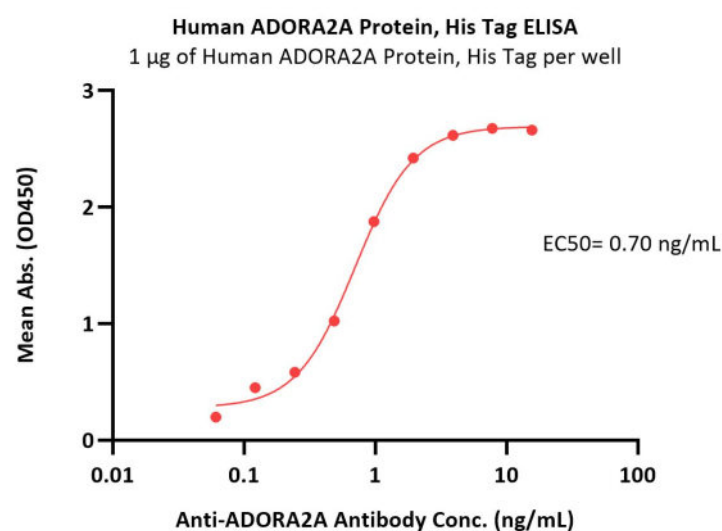
3/5/2024

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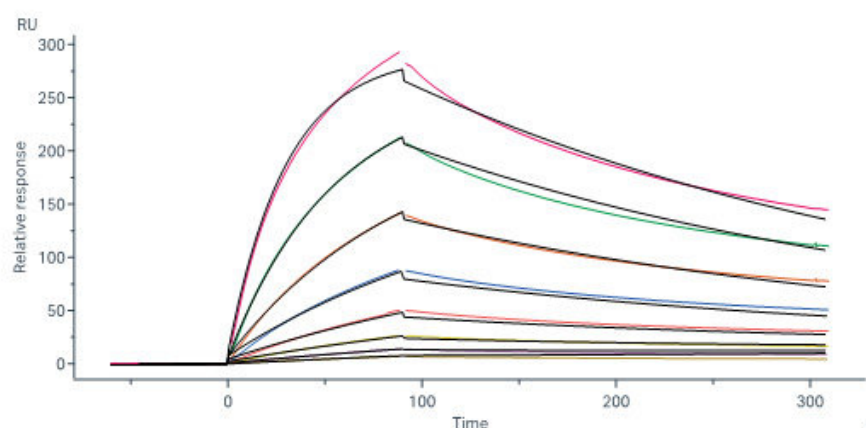


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Immobilized Human ADORA2A Protein, His Tag (Cat. No. ADA-H52H5) at 10 µg/mL (100 µL/well) on a Nickel Coated plate can bind Anti-ADORA2A Antibody with a linear range of 0.1-2 ng/mL (QC tested).

Bioactivity-SPR



Anti-ADORA2A antibody-3F6-9G5 captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human ADORA2A Protein, His Tag (Cat. No. ADA-H52H5) with an affinity constant of 21.8 nM as determined in a SPR assay (in presence of DDM and CHS) (Biacore 8K) (Routinely tested).

Background

This gene encodes 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.

Clinical and Translational Updates

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