

Datasheet for ABIN7448150

**Adenosine A2a Receptor Protein-VLP (ADORA2A) (AA 1-412)**[Go to Product page](#)**2** Images

## Overview

|                          |  |
|--------------------------|--|
| Quantity:                | 100 µg   |
| Target:                  | Adenosine A2a Receptor (ADORA2A)   |
| Protein Characteristics: | AA 1-412   |
| Origin:                  | Human  |
| Source:                  | HEK-293 Cells  |
| Protein Type:            | VLP  |
| Biological Activity:     | Active   |
| Application:             | ELISA, Immunogen (Imm), Functional Studies (Func), Surface Plasmon Resonance (SPR) |

## Product Details

|                              |  |
|------------------------------|--|
| Purpose:                     | Human A2AR Protein-VLP   |
| Sequence:                    | Met1-Ser412  |
| Characteristics:             | Recombinant Human A2AR Protein-VLP is expressed from HEK293. It contains Met1-Ser412.  |
| Purity:                      | > 95 % as determined by HPLC   |
| Sterility:                   | 0.22 µm filtered   |
| Endotoxin Level:             | Less than 1EU per µg by the LAL method.  |
| Biological Activity Comment: | Immobilized Human A2AR VLP at 10µg/ml (100µl/Well) on the plate. Dose response curve for Anti-A2AR Antibody, hFc Tag with the EC50 of 0.87µg/ml determined by ELISA. |

## Target Details

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|                   |   |
|-------------------|---|
| Target:           | Adenosine A2a Receptor (ADORA2A)  |
| Alternative Name: | A2AR ( <a href="#">ADORA2A Products</a> )   |
| Background:       | Adenosine is a neuromodulator in the adult central nervous system. Membrane-bound receptors for adenosine have been identified and cDNAs for A1, A2a, A2b, and A3 adenosine receptor subtypes have been cloned recently. Expression of A2a adenosine receptor mRNA in cranial ganglia, carotid body, and intermediate lobe of the pituitary gland similarly suggests novel sites of adenosine action during development and in the adult. |
| Molecular Weight: | 45.5 kDa.   |
| UniProt:          | <a href="#">P29274</a>  |
| Pathways:         | <a href="#">Neurotrophin Signaling Pathway</a> , <a href="#">cAMP Metabolic Process</a> , <a href="#">Synaptic Membrane</a> , <a href="#">Feeding Behaviour</a> , <a href="#">Cancer Immune Checkpoints</a>   |

## Application Details

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|                    |   |
|--------------------|---|
| Application Notes: | <ul style="list-style-type: none"><li>• Antibody Discovery: Immunization, Screening, Functional Characterization</li><li>• Affinity determination: ELISA, SPR</li><li>• In vivo pharmacokinetic analysis</li><li>• CMC method development</li><li>• CAR-T Positive Rate Detection</li><li>• Blood sample determination: ELISA</li></ul>   |
| Comment:           | <p>Virus-like particles (VLPs) are formed from the outer capsid protein of a virus and are tiny nanoparticles formed by the automatic assembly of one or more capsid proteins. VLPs do not contain viral infectious genomes, so they are relatively safe during production operations. The SAMS™ protein engineering platform has been used to express a series of biotinylated, non-biotinylated, and fluorescently-labeled VLP-displayed antigens. They are suitable for SPR, ELISA, CAR-T positive rate detection, and other experimental scenarios.</p> <p>Virus-Like Particles (VLPs) are highly immunogenic, meaning that they can elicit a strong immune response in the host. VLPs are recognized by the immune system and are taken up by antigen-presenting cells (APCs) such as dendritic cells. Once taken up by APCs, VLPs are processed and presented to T cells, which can trigger the activation of B cells to produce antibodies against the displayed antigen. Because VLPs resemble the structure and composition of native viruses, they are highly effective at inducing both humoral and cellular immune responses.</p> |

## Application Details

Generally, VLPs range in size from approximately 20 to 200 nanometers (nm). Compared to a cell-based immunization approach, their smaller size can optimize the immune response to target the specific antigen displayed on the surface of the engineered VLPs.

Restrictions: For Research Use only

## Handling

Format: Liquid

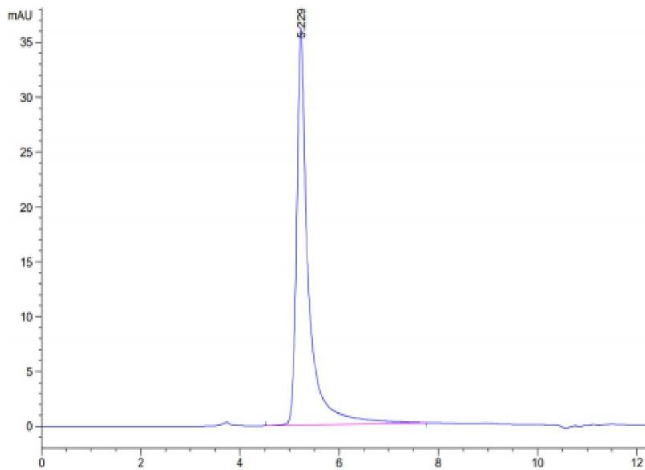
Buffer: Supplied as 0.22 $\mu$ m filtered solution in PBS (pH 7.4). Notice: If you need it for immunization, Do Not use any adjuvant.

Storage: -80 °C

Storage Comment: Valid for 12 months from date of receipt when stored at -80°C., Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

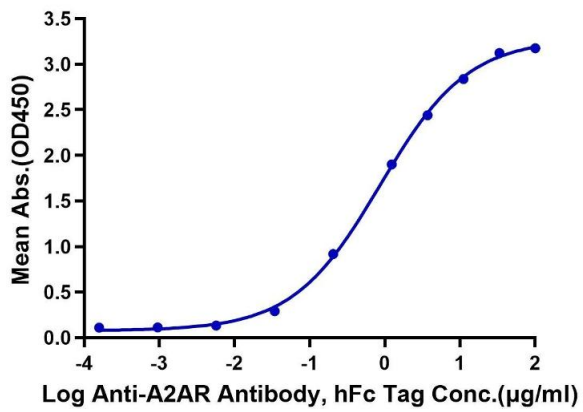
Expiry Date: 12 months

## Images



### Size-exclusion chromatography-High Pressure Liquid Chromatography

**Image 1.** The purity of Human A2AR VLP is greater than 95 % as determined by SEC-HPLC.

**Human A2AR VLP ELISA**  
1µg Human A2AR VLP Per Well**ELISA**

**Image 2.** Immobilized Human A2AR VLP at 10 µg/mL (100 µL/Well) on the plate. Dose response curve for Anti-A2AR Antibody, hFc Tag with the EC<sub>50</sub> of 0.87 µg/mL determined by ELISA.