

# Product Information

## MemDX™ Recombinant Human A2AR Membrane Protein in Virus-Like Particles (MP-VLPs)

Cat. No.: **MPVLP-003**

This product is for research use only and is not intended for diagnostic use.

This product is recombinant Human A2AR in VLPs form. This product is produced from mammalian cells by co-expressing the retroviral structural core polyprotein (gag) and the target membrane protein. MP-VLPs display highly-expressed copies of membrane proteins in their native conformation, providing an alternative to membrane protein stable cell lines, membrane preparations, detergent-solubilized proteins and other membrane protein preparation strategies. MP-VLPs can be used for a wide range of applications in antibody production, antibody discovery, antibody characterization, binding assays and functional assays.

### Product Specifications

#### Host Species

Human

#### Target Protein

A2AR

#### Protein Length

Full length

#### Protein Class

GPCR

#### TMD

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### Product Description

#### Application

ELISA; Antibody Production; Antibody Discovery; Antibody Characterization; Binding Assays; Functional Assays

#### Expression Systems

HEK293 expression system

#### Protein Format

Membrane Protein-Virus Like Particles (MP-VLPs)

#### Form

Liquid

#### Storage

The product should be stored at -20°C or lower. Avoid freeze-thaw cycles.

## Target

### Target Protein

A2AR

### Full Name

Adrenoceptor alpha 2A

### Introduction

Alpha-2-adrenergic receptors are members of the G protein-coupled receptor superfamily. The alpha-2-adrenergic receptors are a type of adrenergic receptors (for adrenaline or epinephrine), which inhibit adenylate cyclase. These receptors include 3 highly homologous subtypes: alpha2A, alpha2B, and alpha2C. They are involved in regulating the release of neurotransmitter molecules from sympathetic nerves and from adrenergic neurons in the central nervous system. The sympathetic nervous system regulates cardiovascular function by activating adrenergic receptors in the heart, blood vessels and kidney. Studies in mouse revealed that both the alpha2A and alpha2C receptor subtypes were required for presynaptic transmitter release from the sympathetic nervous system in the heart and from central noradrenergic neurons. The alpha-2-adrenergic receptors are also involved in catecholamine signaling by extracellular regulated protein kinase 1 and 2 (ERK1/2) pathways. A clear association between the alpha-2-adrenergic receptor and disease has not been yet established.

### Alternative Names

ADRA2; ADRAR; ZNF32; ADRA2R; ALPHA2AAR; ADRA2A; alpha-2A adrenergic receptor; adrenergic, alpha-2A-, receptor; alpha-2 adrenergic receptor subtype C10; alpha-2-adrenergic receptor, platelet type; alpha-2A adrenoceptor; alpha-2A adrenoreceptor; alpha-2AAR subtype C10

### Gene ID

[150](#)

### UniProt ID

[P08913](#)