# ANTIBODIES ONLINE

Datasheet for ABIN7538126 **ADRB1 Protein** 

2 Images



## Overview

Quantity:	50 µg
Target:	ADRB1
Origin:	Human
Source:	Mammalian Cells
Protein Type:	Synthetic Nanodisc

## **Product Details**

Purpose:	Human ADRB1 full length protein-synthetic nanodisc
Characteristics:	Unlike other membrane scaffold protein (MSP) Nanodisc on the market, our synthetic Nanodisc
	can be prepared directly from the cells. The polymers used during this process have a dual
	function. It dissolves the cell membranes, like the detergent, and uses cellular phospholipids to
	form Nanodisc around the membrane proteins. The target protein embedded Nanodiscs can
	then be purified.

## Target Details

Target:	ADRB1
Alternative Name:	ADRB1 (ADRB1 Products)
Background:	The adrenergic receptors (subtypes alpha 1, alpha 2, beta 1, and beta 2) are a prototypic family
	of guanine nucleotide binding regulatory protein-coupled receptors that mediate the
	physiological effects of the hormone epinephrine and the neurotransmitter norepinephrine.
	Beta-1 adrenoceptors are predominately located in the heart. Specific polymorphisms in this
	gene have been shown to affect the resting heart rate and can be involved in heart failure.

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Molecular Weight:	The human full length ADRB1 protein has a MW of 51.2 kDa
UniProt:	P08588
Pathways:	cAMP Metabolic Process, Cellular Glucan Metabolic Process, Regulation of Muscle Cell
	Differentiation, Synaptic Membrane, Regulation of G-Protein Coupled Receptor Protein
	Signaling, G-protein mediated Events, Interaction of EGFR with phospholipase C-gamma, Brown
	Fat Cell Differentiation

## Application Details

Comment:	Advantages of Synthetic Nanodiscs:	
	Highly purified membrane proteins	
	High solubility in aqueous solutions	
	High stability	
	<ul> <li>Proteins are in a native membrane environment and remain biologically active</li> </ul>	
	No detergent and can be used for cell-based assays	
	No MSP backbone proteins	
	Limitations of Synthetic Nanodiscs:	
	Intolerant to acids and high concentrations of divalent metal ions	
Restrictions:	For Research Use only	
Handling		
Format:	Lyophilized	
Buffer:	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.	
Storage:	-20 °C,-80 °C	
Storage Comment:	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.	
Expiry Date:	12 months	

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#### ELISA assay to evaluate ADRB1-Nanodisc 0.2µg Human ADRB1-Nanodisc per well



## SDS-PAGE

Image 1. Human A-Nanodisc, Flag Tag on SDS-PAGE

### ELISA

**Image 2.** Elisa plates were pre-coated with Flag Tag A-Nanodisc (0.2 µg/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 A-Nanodisc is 6.812 ng/mL.

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