Datasheet for ABIN7538261

GPR18 Protein

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Overview

Quantity:	50 µg
Target:	GPR18
Origin:	Human
Source:	Mammalian Cells
Protein Type:	Synthetic Nanodisc

Product Details

Purpose:	Human GPR18 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:	GPR18
Alternative Name:	GPR18 (GPR18 Products)
Background:	Receptor for endocannabinoid N-arachidonyl glycine (NAGly) (PubMed:16844083, PubMed:24762058, PubMed:27572937). However, conflicting results about the role of NAGly as an agonist are reported (PubMed:27018161). Can also be activated by plant-derived and synthetic cannabinoid agonists (PubMed:24762058). The activity of this receptor is mediated by G proteins which inhibit adenylyl cyclase (PubMed:16844083). May contribute to regulation

Target Details

	of the immune system. Is required for normal homeostasis of CD8 subsets of intraepithelial lymphocytes (IELs) (CD8alphaalpha and CD8alphabeta IELs)in small intstine by supporting preferential migration of CD8alphaalpha T-cells to intraepithelial compartment over lamina propria compartment, and by mediating their reconstitution into small intestine after bone marrow transplant (By similarity). Plays a role in hypotensive responses, mediating reduction in intraocular and blood pressure (By similarity). Mediates NAGly-induced process of reorganization of actin filaments and induction of acrosomal exocytosis (PubMed:27572937).[UniProtKB/Swiss-Prot Function]
Molecular Weight:	The human full length GPR18 protein has a MW of 38.1kDa
UniProt:	Q14330

Application Details

Comment:	Advantages of Synthetic Nanodiscs: • Highly purified membrane proteins • High solubility in aqueous solutions • High stability • Proteins are in a native membrane environment and remain biologically active • 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