Datasheet for ABIN7538458

OPN1SW Protein

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Overview

Quantity:	50 µg
Target:	OPN1SW
Origin:	Human
Source:	Mammalian Cells
Protein Type:	Synthetic Nanodisc

Product Details

Purpose:	Human OPSB 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:	OPN1SW
Alternative Name:	OPSB (OPN1SW Products)
Background:	This gene belongs to the G-protein coupled receptor 1 family, opsin subfamily. It encodes the blue cone pigment gene which is one of three types of cone photoreceptors responsible for normal color vision. Defects in this gene are the cause of tritan color blindness (tritanopia). Affected individuals lack blue and yellow sensory mechanisms while retaining those for red and green. Defective blue vision is characteristic. [provided by RefSeq, Jul 2008]

Target Details

Molecular Weight:	The human full length OPSB protein has a MW of 38.7kDa
UniProt:	P03999

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