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Datasheet for ABIN7538140

## ABCG1 Protein

### Overview

Quantity:	50 µg
Target:	ABCG1
Origin:	Human
Source:	Mammalian Cells
Protein Type:	Synthetic Nanodisc

### Product Details

Purpose:	Human ABCG1 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:	ABCG1
Alternative Name:	ABCG1 ( <a href="#">ABCG1 Products</a> )
Background:	The protein is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the White subfamily. It is involved in macrophage cholesterol and phospholipids transport, and may regulate cellular lipid homeostasis in other cell types

## Target Details

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Molecular Weight: The human full length ABCG1 protein has a MW of 75.6 kDa

UniProt: [P45844](#)

Pathways: [Lipid Metabolism](#)

## Application Details

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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

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Restrictions: For Research Use only

## Handling

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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.

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Expiry Date: 12 months