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## Datasheet for ABIN7538251 GPBAR1 Protein

### Overview

Quantity:	50 µg
Target:	GPBAR1
Origin:	Human
Source:	Mammalian Cells
Protein Type:	Synthetic Nanodisc

### Product Details

Purpose:	Human GPBAR 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:	GPBAR1
Alternative Name:	GPBAR ( <a href="#">GPBAR1 Products</a> )
Background:	This gene encodes a member of the G protein-coupled receptor (GPCR) superfamily. This enzyme functions as a cell surface receptor for bile acids. Treatment of cells expressing this GPCR with bile acids induces the production of intracellular cAMP, activation of a MAP kinase signaling pathway, and internalization of the receptor. The receptor is implicated in the suppression of macrophage functions and regulation of energy homeostasis by bile acids.

## Target Details

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Alternative splicing results in multiple transcript variants encoding the same protein. [provided by RefSeq, Jul 2008]

Molecular Weight: The human full length GPBAR protein has a MW of 35.2kDa

UniProt: [Q8TDU6](#)

Pathways: [WNT Signaling](#), [Hormone Transport](#), [Sensory Perception of Sound](#)

## 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

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.

Expiry Date: 12 months