

Datasheet for ABIN7538333

Integrin beta 4 Protein (ITGB4)[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	Integrin beta 4 (ITGB4)
Origin:	Human
Source:	Mammalian Cells
Protein Type:	Synthetic Nanodisc

Product Details

Purpose:	Human GP150 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:	Integrin beta 4 (ITGB4)
Alternative Name:	GP150 (ITGB4 Products)
Background:	This gene encodes an orphan member of the class A rhodopsin-like family of G-protein-coupled receptors (GPCRs). Within the rhodopsin-like family, this gene is a member of the vasopressin-like subfamily that also includes vasopressin and oxytocin receptors. The silencing of this gene, due to promoter methylation, is associated with ovarian cancer progression. All GPCRs have a transmembrane domain that includes seven transmembrane alpha-helices. A general feature of

Target Details

GPCR signaling is the agonist-induced conformational change in the receptor, leading to activation of the heterotrimeric G protein. The activated G protein then binds to and activates numerous downstream effector proteins, which generate second messengers that mediate a broad range of cellular and physiological processes. [provided by RefSeq, Jul 2017]

Molecular Weight: The human full length GP150 protein has a MW of 46.4kDa

UniProt: [Q8NGU9](#)

Pathways: [Integrin Complex](#)

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