

Datasheet for ABIN7538453

Olfactory Receptor, Family 8, Subfamily U, Member 8 (OR8U8)**Protein**[Go to Product page](#)**2** Images

Overview

Quantity:	50 µg
Target:	Olfactory Receptor, Family 8, Subfamily U, Member 8 (OR8U8)
Origin:	Human
Source:	Mammalian Cells
Protein Type:	Synthetic Nanodisc

Product Details

Purpose:	Human OR8U8 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:	Olfactory Receptor, Family 8, Subfamily U, Member 8 (OR8U8)
Alternative Name:	OR8U8 (OR8U8 Products)
Background:	Olfactory receptors interact with odorant molecules in the nose, to initiate a neuronal response that triggers the perception of a smell. The olfactory receptor proteins are members of a large family of G-protein-coupled receptors (GPCR) arising from single coding-exon genes. Olfactory receptors share a 7-transmembrane domain structure with many neurotransmitter and hormone receptors and are responsible for the recognition and G protein-mediated

Target Details

transduction of odorant signals. The olfactory receptor gene family is the largest in the genome. The nomenclature assigned to the olfactory receptor genes and proteins for this organism is independent of other organisms.

Molecular Weight: The human full length OR8U8 protein has a MW of 36.3 kDa

UniProt: [P0C7N1](#)

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

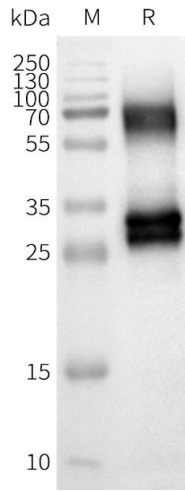
Format: Lyophilized

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.

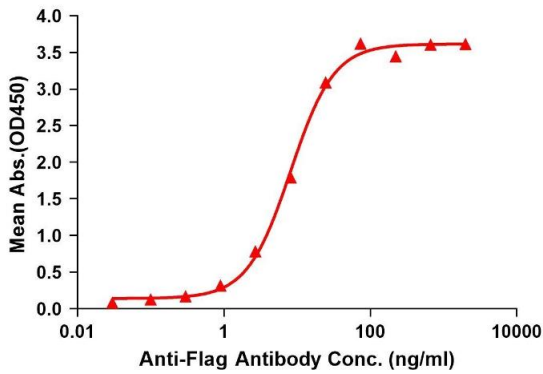
Expiry Date: 12 months



Western Blotting

Image 1. WB analysis of Human OR8U8-Nanodisc with anti-Flag monoclonal antibody at 1/5000 dilution, followed by Goat Anti-Rabbit IgG HRP at 1/5000 dilution

ELISA assay to evaluate OR8U8-Nanodisc
0.2µg Human OR8U8-Nanodisc per well



ELISA

Image 2. Elisa plates were pre-coated with Flag Tag OR8U8-Nanodisc (0.2 µg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with OR8U8-Nanodisc is 8.175 ng/mL.