Datasheet for ABIN7491611

CLPTM1 Protein

2 Images

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Overview

Quantity:	100 µg
Target:	CLPTM1
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Synthetic Nanodisc

Product Details

Purpose:	Human CLPTM1 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:	CLPTM1
Alternative Name:	CLPTM1 (CLPTM1 Products)
Background:	Involved in GABAergic but not glutamatergic transmission. Binds and traps GABAA receptors in the endoplasmic reticulum (ER). Modulates postsynaptic GABAergic transmission, and therefore inhibitory neurotransmission, by reducing the plasma membrane expression of these receptors. Altered GABAergic signaling is one among many causes of cleft palate. Might function as a lipid scramblase, translocating lipids in membranes from one leaflet to the other

Target Details

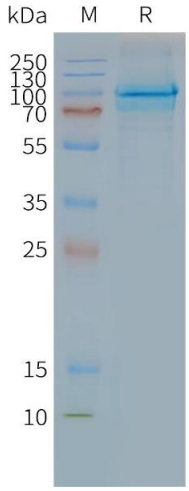
	one.
Molecular Weight:	The human full length CLPTM1 protein has a MW of 76.1 kDa
UniProt:	O96005

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

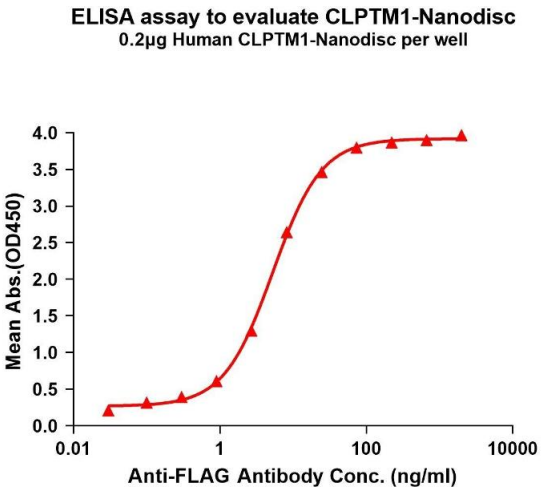
Handling

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



SDS-PAGE

Image 1. Human CL-Nanodisc, Flag Tag on SDS-PAGE



ELISA

Image 2. Elisa plates were pre-coated with Flag Tag CL-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 CL-Nanodisc is 5.286 ng/mL.