Datasheet for ABIN7491584

CD47 Protein (CD47)

2 Images

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Overview

Quantity:	100 µg
Target:	CD47
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Synthetic Nanodisc

Product Details

Purpose:	Human CD47 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:	CD47
Alternative Name:	CD47 (CD47 Products)
Background:	A membrane protein involved in the increase in intracellular calcium concentration that occurs upon cell adhesion to extracellular matrix. The encoded protein is also a receptor for the C-terminal cell binding domain of thrombospondin, and it may play a role in membrane transport and signal transduction. This gene has broad tissue distribution, and is reduced in expression on Rh erythrocytes.

Target Details

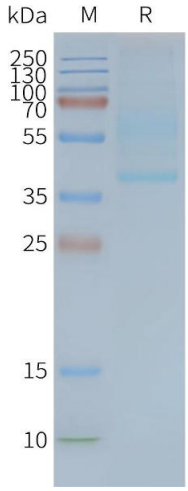
Molecular Weight:	The human full length CD47 protein has a MW of 35.2 kDa
UniProt:	Q08722

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

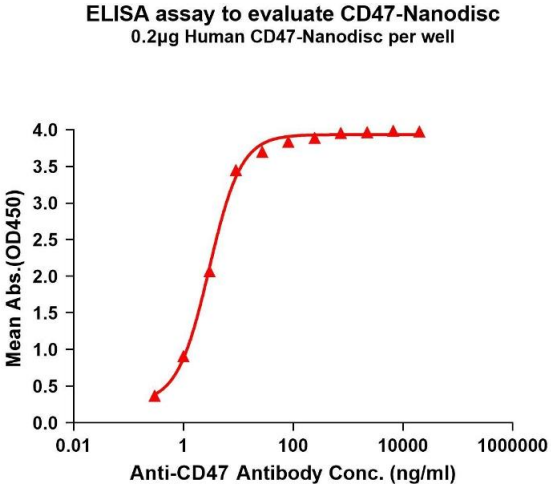
Handling

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 CD47-Nanodisc, Flag Tag on SDS-PAGE



ELISA

Image 2. Elisa plates were pre-coated with Flag Tag CD47-Nanodisc (0.2 μg/per well). Serial diluted anti-CD47 monoclonal antibody (ABIN7093068 and ABIN7272598) solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-CD47 monoclonal antibody binding with CD47-Nanodisc is 2.959 ng/mL.