



Datasheet for ABIN7538154

CALCRL Protein



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2 Images

Overview

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

Product Details

Purpose:	Human CGRPR-RAMP1 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:	CALCRL
Alternative Name:	CGRPR (CALCRL Products)
Background:	The CGRP receptor (CGRPR) is a member of family B G protein coupled receptors (GPCRs), is expressed throughout the trigeminal system, including neurons and endothelial cells. They usually function with accessory proteins such as receptor activity modifying proteins (RAMPs) and Na/H exchange regulatory factors (NHERFs). CGRPR is a heterodimer complex of the calcitonin receptor-like receptor (CRLR) and receptor activity-modifying protein 1 (RAMP1).

Target Details

Therapeutics for migraine treatment are mostly targeting CRLR-RAMP1 protein-protein interaction surfaces, thereby blocking CGRP activity.

Molecular Weight: The human full length CGRPR protein has a MW of 53.0 kDa

UniProt: [Q16602](#)

Pathways: [cAMP Metabolic Process](#)

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.

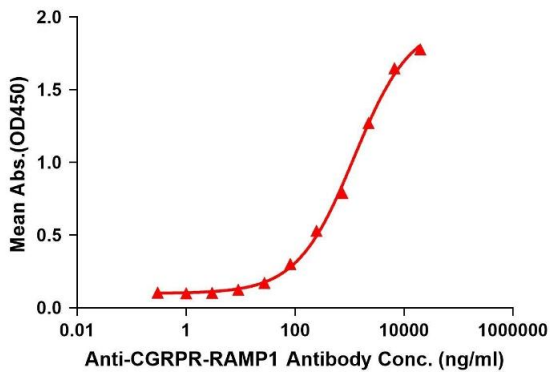
Expiry Date: 12 months



SDS-PAGE

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

ELISA assay to evaluate CGRPR-RAMP1-Nanodisc 0.2µg Human CGRPR-RAMP1-Nanodisc per well



ELISA

Image 2. Elisa plates were pre-coated with Flag Tag CGRPR-R-Nanodisc (0.2 µg/per well). Serial diluted anti-CGRPR monoclonal antibody ((ABIN7538756)) solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-CGRPR monoclonal antibody binding with CGRPR-R-Nanodisc is 1216 ng/mL.