



[Go to Product page](#)

Datasheet for ABIN7538158 CNR1 Protein

Overview

Quantity:	50 µg
Target:	CNR1
Origin:	Human
Source:	Mammalian Cells
Protein Type:	MSP Nanodisc

Product Details

Purpose:	Human CB1 full length protein membrane nanoparticles (MNPs)
Characteristics:	Plasma membrane-coated nanoparticles (MNPs) have been used in various applications, including delivery of therapeutic agents and induction of immune responses et al. Unlike the conventional strategies, MNPs directly leverage intact and natural functions of cell membranes, and show high biocompatibility, specificity, and low side effects. Our optimized MNPs platform for the full-length membrane protein production uses membrane coating technology and a HEK293 based expression platform. The high-purity plasma membrane-coated nanoparticles were produced by extrusion after membrane extraction from the host HEK293 cells containing the overexpressed target proteins.

Target Details

Target:	CNR1
Alternative Name:	CB1 (CNR1 Products)
Background:	The cannabinoids, principally delta-9-tetrahydrocannabinol and synthetic analogs, are psychoactive ingredients of marijuana. The cannabinoid receptors are members of the guanine-

Target Details

nucleotide-binding protein (G-protein) coupled receptor family, which inhibit adenylate cyclase activity in a dose-dependent, stereoselective and pertussis toxin-sensitive manner. The two receptors have been found to be involved in the cannabinoid-induced CNS effects (including alterations in mood and cognition) experienced by users of marijuana. Multiple transcript variants encoding two different protein isoforms have been described for this gene.

Molecular Weight: The human full length CB1 Protein has a MW of 52.7 kDa

UniProt: [P21554](#)

Pathways: [Feeding Behaviour](#)

Application Details

Comment: Advantages of Membrane Nanoparticles (MNPs):

- High display density of target membrane proteins
- Native structure and orientation of transmembrane protein
- soluble in aqueous solutions for routine biochemical analysis
- Detergent-free purification process
- Strong immunogenicity
- Works for MPs that can't be produced via VLPs and EXOs

Limitations of Membrane Nanoparticles (MNPs):

- Lack of accurate quantification of the target membrane proteins.
- Need to develop special SPR assayx.
- Cell membranes contain housekeeping proteins that can result in immune response dilution.
- Some membrane proteins can't be enriched on membrane.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Buffer: Lyophilized from sterile PBS, pH 7.4. 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