

Datasheet for ABIN7597109

CACNA1A Protein (DYKDDDDK Tag, Strep Tag)



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Overview

Quantity:	10 µg
Target:	CACNA1A
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Synthetic Nanodisc
Purification tag / Conjugate:	This CACNA1A protein is labelled with DYKDDDDK Tag, Strep Tag.
Application:	ELISA, Cryogenic electron microscopy (cryo-EM), Immunogen (Imm), Phage Display (PhD), Surface Plasmon Resonance (SPR)

Product Details

Purpose:	Human CAC1A-Strep full length protein-synthetic nanodisc
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Target Details

Target:	CACNA1A
Alternative Name:	CAC1A (CACNA1A Products)
Background:	<p>APCA, BI, CACNL1A4, CAV2.1, DEE42, EA2, EIEE42, FHM, HPCA, MHP, MHP1, SCA6</p> <p>Voltage-dependent calcium channels mediate the entry of calcium ions into excitable cells, and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, and gene expression. Calcium channels are multisubunit complexes composed of alpha-1, beta, alpha-2/delta, and gamma subunits. The channel activity is directed by the pore-forming alpha-1 subunit, whereas, the others act as auxiliary subunits regulating this activity. The distinctive properties of the calcium channel types are</p>

Target Details

related primarily to the expression of a variety of alpha-1 isoforms, alpha-1A, B, C, D, E, and S. This gene encodes the alpha-1A subunit, which is predominantly expressed in neuronal tissue. Mutations in this gene are associated with 2 neurologic disorders, familial hemiplegic migraine and episodic ataxia 2. This gene also exhibits polymorphic variation due to (CAG)_n-repeats. Multiple transcript variants encoding different isoforms have been found for this gene. In one set of transcript variants, the (CAG)_n-repeats occur in the 3' UTR, and are not associated with any disease. But in another set of variants, an insertion extends the coding region to include the (CAG)_n-repeats which encode a polyglutamine tract. Expansion of the (CAG)_n-repeats from the normal 4-18 to 21-33 in the coding region is associated with spinocerebellar ataxia 6. [provided by RefSeq, Jul 2016]

Molecular Weight: The human full length CAC1A-Strep protein has a MW of 282.6 kDa

UniProt: [O00555](#)

Pathways: [Regulation of Hormone Metabolic Process](#), [Regulation of Hormone Biosynthetic Process](#)

Application Details

Comment: Advantages:

- 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
- Mammalian cell expression system ensures post- translational modifications

Restrictions: For Research Use only

Handling

Format: Lyophilized

Buffer: 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.

Handling

Expiry Date: 12 months