Nanodisc Human CAC1A-Strep Protein



HDFP1362

Product Information

Product SKU: HDFP1362 Expression Host: HEK293 Size: 10μg

Target: CAC1A **Tag**: C-Flag&Strep Tag

Additional Information

Conjugate: Unconjugated Uniprot ID: 000555

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

Protein Information

Background:

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 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]

Synonyms: APC

APCA, BI, CACNL1A4, CAV2.1, DEE42, EA2, EIEE42, FHM, HPCA, MHP, MHP1, SCA6

Protein Description: Human CAC1A-Strep full length protein-synthetic nanodisc

Formulation: 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. Please

see Certificate of Analysis for specific instructions. Do not use solvents with a pH

below 6.5 or those containing high concentrations of divalent metal ions (greater

than 5 mM) in subsequent experiments.

Protein Pathways: -

Protein Families: Ion Channels: Calcium.

Usage: Research use only

Storage & Shipping: 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.