Datasheet for ABIN7597160

CHRNA7 Protein (DYKDDDDK Tag,Strep Tag)

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Overview

Quantity:	10 µg
Target:	CHRNA7
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Synthetic Nanodisc
Purification tag / Conjugate:	This CHRNA7 protein is labelled with DYKDDDDK Tag,Strep Tag.
Application:	Immunogen (Imm), ELISA, Surface Plasmon Resonance (SPR), Phage Display (PhD), Cryogenic electron microscopy (cryo-EM)

Product Details

Purpose:	Human ACHA7-Strep full length protein-synthetic nanodisc

Target Details

Target:	CHRNA7
Alternative Name:	ACHA7 (CHRNA7 Products)
Background:	CHRNA7-2, NACHRA7 The nicotinic acetylcholine receptors (nAChRs) are members of a superfamily of ligand-gated ion channels that mediate fast signal transmission at synapses. The nAChRs are thought to be hetero-pentamers composed of homologous subunits. The proposed structure for each subunit is a conserved N-terminal extracellular domain followed by three conserved transmembrane domains, a variable cytoplasmic loop, a fourth conserved transmembrane domain, and a short C-terminal extracellular region. The protein encoded by this gene forms a

Target Details

	homo-oligomeric channel, displays marked permeability to calcium ions and is a major component of brain nicotinic receptors that are blocked by, and highly sensitive to, alpha-bungarotoxin. Once this receptor binds acetylcholine, it undergoes an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane. This gene is located in a region identified as a major susceptibility locus for juvenile myoclonic epilepsy and a chromosomal location involved in the genetic transmission of schizophrenia. An evolutionarily recent partial duplication event in this region results in a hybrid containing sequence from this gene and a novel FAM7A gene. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2012]
Molecular Weight:	The human full length ACHA7-Strep protein has a MW of 56.4 kDa
UniProt:	P36544
Pathways:	Synaptic Membrane

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.
Expiry Date:	12 months