CHRNA1 Protein, Mouse (His)

Cat. No.:	HY-P72141
Synonyms:	Chrna1; Acra; Acetylcholine receptor subunit alpha
Species:	Mouse
Source:	E. coli
Accession:	P04756 (S21-L230)
Gene ID:	11435
Molecular Weight:	Approximately 25 kDa

PROPERTIES

AA Sequence	S E H E T R L V A K L F E D Y S S V V R P V E D H R E I V Q V T V G L Q L I Q L I N V D E V N Q I V T T N V R L K Q Q W V D Y N L K W N P D D Y G G V K K I H I P S E K I W R P D V V L Y N N A D G D F A I V K F T K V L L D Y T G H I T W T P P A I F K S Y C E I I V T H F P F D E Q N C S M K L G T W T Y D G S V V A I N P E S D Q P D L S N F M E S G E W V I K E A R G W K H W V F Y S C C P T T P Y L D I T Y H F V M Q R L
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm solution of 50 mM Tris-HCL, 300 mM NaCL, 200 mM arginine, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The CHRNA1 protein, also known as the alpha-1 subunit of the acetylcholine receptor (AChR), plays a crucial role in mediating cellular responses upon acetylcholine binding. As a component of the AChR, it is part of a pentameric structure consisting of two alpha chains, a beta, a delta, and either a gamma (in immature muscle) or epsilon (in mature muscle) chain. Upon acetylcholine binding, the AChR undergoes an extensive conformational change across all subunits, resulting in the opening of an ion-conducting channel across the plasma membrane. This process is integral to the transmission of nerve signals at the neuromuscular junction. Additionally, the muscle heteropentamer, comprising alpha-1, beta-1, delta,

	and epsilon subunits, interacts with the alpha-conotoxin ImII, further highlighting the intricate molecular interactions involved in the functionality of CHRNA1 within the acetylcholine receptor complex.

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