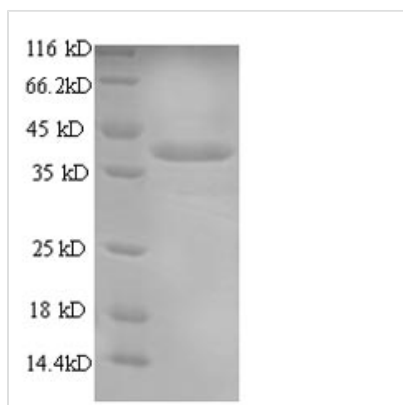




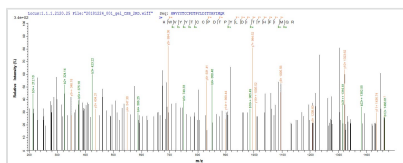
Recombinant Tetronarce californica Acetylcholine receptor subunit alpha (CHRNA1), partial

Product Code	CSB-EP005386TOTa2
Relevance	After binding acetylcholine, the AChR responds by an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane.
Abbreviation	Recombinant Tetronarce californica CHRNA1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P02710
Product Type	Recombinant Proteins
Immunogen Species	Tetronarce californica (Pacific electric ray) (Torpedo californica)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	SEHETRLVANLLENYNKVIKRPVEHHHTHFVDITVGLQLIQLISVDEVNQIVETNVRL RQQWIDVRLRWNPADYGGIKKIRLPSDDVWLPDLVLYNNADGDFAIHMTKLL LDYTGKIMWTPPAIFKSYCEIIVTHFPFDQQNCTMKLGIWTDGTKVSISPESDR PDLSTFMESGEWVMKDYRGWKHWVYYTCCPDTPYLDITYHFIMQRI
Research Area	Others
Source	E.coli
Target Names	CHRNA1
Expression Region	25-234aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	40.8kDa
Protein Length	Extracellular Domain

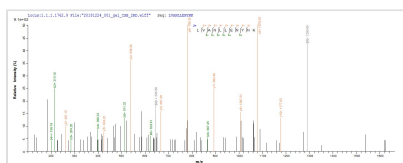
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP005386TOTa2 could indicate that this peptide derived from E.coli-expressed *Tetronarce californica* (Pacific electric ray) (Torpedo californica) CHRNA1.



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Description

The Recombinant *Tetronarce californica* CHRNA1 protein is a protein encoded by recombinant DNA that was cloned in an expression vector that supported the expression of CHRNA1 gene. This recombinant CHRNA1 protein was expressed in the host. The expression region is 25-234aa of the *Tetronarce californica* CHRNA1. In the production, the expression vector contains N-terminal 6xHis-SUMO tag. Every production step was performed with a strict QC system. The purity of this protein is 90%+ determined by SDS-PAGE.

Alpha 1 subunit of nAChRs, which is also called CHRNA1, belongs to muscle type nAChR, different from other neuronal alpha subunits nAChRs. CHRNA1 is detected its expression in NSCLC, and nicotine could activate its downstream MAPK and AKT signaling pathways to induce drug resistance. Additionally, CHRNA1 regulates the binding and gating of acetylcholine neurotransmitters, stood out due to its role in the sympathetic nervous system, which regulates the binding and gating of acetylcholine neurotransmitters, stood out due to its role in the sympathetic nervous system. Previously, dysregulated CHRNA1 levels were found to be associated with multiple neuromuscular disorders, such as congenital myasthenic syndrome, myasthenia gravis, and multiple pterygium syndrome. More importantly, the CHRNA1 gene expression has been found to be significantly higher in the thoracic sympathetic ganglia of patients with hand sweating than normal subjects. Acetylcholine blockers have been used to treat patients with primary focal hyperhidrosis, and the enhanced expression of CHRNA1 gene may be one of the mechanisms underlying excessive sweat secretion. Recently many reports have focused on nAChR inhibitors as target



agents for cancer therapy. CHRNA1, a subunit of nAChRs expressed in lung cancer patients, should be the target of cancer therapeutic development for improving the cure rate or for preventing recurrence and prolonging patient survival.

Shelf Life

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