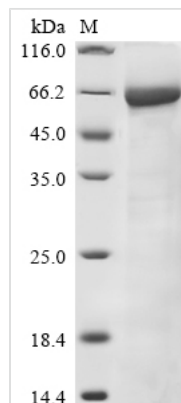




Recombinant Rat Acetylcholinesterase (Ache)

Product Code	CSB-EP001154RA
Abbreviation	Recombinant Rat Ache protein
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.	P37136
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	EGREDPQLLVVRGGQLRGIRLKAPGGPVSAFLGIPFAEPPVGSRRFMPPEPK RPWSGILDATTFQNVCYQYVDTLYPGFEGTEMWNPNNRELSCLYLNWVTPY PRPTSPTPVLIWIYGGGFYSGASSLDVYDGRFLAQVEGTVLVSMNYRVGTFGF LALPGSREAPGNVGLLDQRLALQWVQENIAAFGGDPMSVTLFGESAGAASVG MHILSLPSRSLFHRAVLQSGTPNGPWATVSAGEARRRATLLARLVGCPPGGA GGNDELISCLRTRPAQDLVDHEWHVLPQESIFRFSFVPVVDGDFLSDTPDALI NTGDFQDLQVLVGVMKDEGSYFLVYGVPGFSKDNESLISRAQFLAGVRIGVPQ ASDLAAEAVVLHYTDWLHPEDPAHLRDAMSAVVGDNVVCVPAQLAGRLAAQ GARVYAYIFEHRASTLTWPLWMGVPHGYEIEFIFGLPLDPSLNYTVEERIFAQR LMQYWTNFARTGDPNDPRDSKSPRWPPYTAAQQYVSLNLKPLEVRRGLRA QTCAFWNRFLPKLLSATDTLDEAERQWKAEFHRWSSYMVHWKNQFDHYSKQ ERCSDL
Research Area	Cardiovascular
Source	E.coli
Target Names	Ache
Expression Region	32-614aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	68.9 kDa
Protein Length	Full Length of Mature Protein
Image	



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

Description

The recombinant Rat Ache was expressed with the amino acid range of 32-614. This Ache protein is theoretically predicted to have a molecular weight of 68.9 kDa. This Ache recombinant protein is manufactured in e.coli. The Ache coding gene included the N-terminal 6xHis tag, which simplifies the detection and purification processes of the recombinant Ache protein in following stages of expression and purification.

Acetylcholinesterase (AChE) is an enzyme crucial for terminating nerve impulses at cholinergic synapses. It resides in neuromuscular junctions and cholinergic brain synapses, where it hydrolyzes the neurotransmitter acetylcholine, ensuring proper signal transmission. AChE plays a pivotal role in regulating cholinergic neurotransmission, influencing muscle contraction and cognitive functions. Dysregulation or inhibition of AChE is associated with various conditions, including neurodegenerative diseases. Studying rat AChE contributes to understanding cholinergic mechanisms and developing therapeutic interventions for neurological disorders.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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.