

Acetylcholinesterase/ACHE Protein, Human (CHO, His)

Cat. No.:	HY-P79277
Synonyms:	acetylcholinesterase (Yt blood group); Acetylcholinesterase; ACHE; apoptosis-related acetylcholinesterase; ARACHE; EC 3.1.1.1; EC 3.1.1.7; N-ACHE; Yt blood group; YT
Species:	Human
Source:	CHO
Accession:	P22303 (E32-L614)
Gene ID:	43
Molecular Weight:	Approximately 66 kDa

PROPERTIES

AA Sequence

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E G R E D A E L L V   T V R G G R L R G I   R L K T P G G P V S   A F L G I P F A E P
P M G P R R F L P P   E P K Q P W S G V V   D A T T F Q S V C Y   Q Y V D T L Y P G F
E G T E M W N P N R   E L S E D C L Y L N   V W T P Y P R P T S   P T P V L V W I Y G
G G F Y S G A S S L   D V Y D G R F L V Q   A E R T V L V S M N   Y R V G A F G F L A
L P G S R E A P G N   V G L L D Q R L A L   Q W V Q E N V A A F   G G D P T S V T L F
G E S A G A A S V G   M H L L S P P S R G   L F H R A V L Q S G   A P N G P W A T V G
M G E A R R R A T Q   L A H L V G C P P G   G T G G N D T E L V   A C L R T R P A Q V
L V N H E W H V L P   Q E S V F R F S F V   P V V D G D F L S D   T P E A L I N A G D
F H G L Q V L V G V   V K D E G S Y F L V   Y G A P G F S K D N   E S L I S R A E F L
A G V R V G V P Q V   S D L A A E A V V L   H Y T D W L H P E D   P A R L R E A L S D
V V G D H N V V C P   V A Q L A G R L A A   Q G A R V Y A Y V F   E H R A S T L S W P
L W M G V P H G Y E   I E F I F G I P L D   P S R N Y T A E E K   I F A Q R L M R Y W
A N F A R T G D P N   E P R D P K A P Q W   P P Y T A G A Q Q Y   V S L D L R P L E V
R R G L R A Q A C A   F W N R F L P K L L   S A T D T L D E A E   R Q W K A E F H R W
S S Y M V H W K N Q   F D H Y S K Q D R C   S D L
  
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Biological Activity Measured by its ability to cleave Acetylthiocholine. The specific activity is 308.73 nmol/min/μg, as measured under the described conditions.

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 150 mM NaCl, pH 7.4.

Endotoxin Level <1 EU/μg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. 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**

Acetylcholinesterase (ACHE) protein plays a crucial role in neurotransmission by rapidly hydrolyzing the acetylcholine neurotransmitter in the synaptic cleft, thereby facilitating the termination of signal transduction at the neuromuscular junction. Beyond its essential function in neurotransmitter regulation, ACHE is implicated in neuronal apoptosis, suggesting a broader role in cellular processes related to programmed cell death.

Caution: Product has not been fully validated for medical applications. For research use only.

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