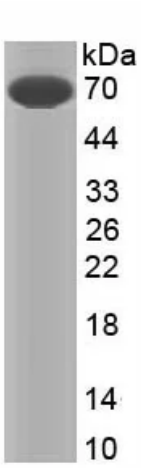
Active Acetylcholinesterase (ACHE)

Catalog#:PHM12675

概述（Summary）

别称（Alternative Names）	ARAChE; N-AChE; YT
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Glu32-Leu614】
Accession #	P21836
表达宿主（Host）	293F
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	66.4 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Terminates signal transduction at the neuromuscular junction by rapid hydrolysis of the acetylcholine released into the synaptic cleft.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

Specific Activity (nmol/min/ug)=

$$\frac{\text{Adjusted } V_{max}^{*} \text{ (OD/min) x well volume (L) x } 10^{9} \text{ nmol/mol}}{\text{ext. coeff}^{**} \text{ (M}^{-1}\text{cm}^{-1}\text{) x path corr.}^{***} \text{ (cm) x amount of enzyme (ug)}}$$

*Adjusted for Substrate Blank
**Using the extinction coefficient 13260 $M^{-1}cm^{-1}$
***Using the path correction 0.320 cm

The classical role of ACHE is to terminate cholinergic neurotransmission by hydrolysis of acetylcholine (ACH). ACHE is thought to be involved in the pathology of Alzheimer's disease (AD) by accelerating the assembly of A beta peptides into fibrillar species through forming complexes with A beta via the peripheral anionic site on ACHE. ACHE inhibitors have been used to delay symptoms of AD patients by virtue of their ability to enhance ACH availability, as well as reduce amyloidogenesis and subsequent neurotoxicity. Its involvement in the cholinergic anti-inflammatory pathway connects ACHE with a possible marker of low-grade systemic inflammation in obesity, hypertension, coronary heart disease, and AD. The activity of recombinant mouse ACHE was measured by its ability to cleave Acetylthiocholine in the assay buffer 0.1 M sodium phosphate, 0.05% (w/v) Brij-35, pH 7.5. 50 µL of various concentrations of rmACHE (diluted by Assay Buffer) was added into the 96-well clear plate and the reaction was started by the addition of 50 µl substrate mixture of 200 uM acetylthiocholine and 100 uM DTNB. The final well serves as a negative control with no rmACHE, replaced with 50µl assay buffer and 50 ul substrate mixture. Read plate in kinetic mode for 5 minutes at an absorbance of 405 nm. The specific activity of recombinant mouse ACHE is >2200 nmol/min/µg.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.