

## Recombinant Human ACHE, His-tagged

Cat. No. ACHE-101H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** The protein was expressed as 6\*his-tagged fusion protein by E.Coli and purified by Ni-sepharose.

**Species** Human

**Source** E.coli

**ProteinLength** 1-351aa

#### Description

Acetylcholinesterase hydrolyzes the neurotransmitter, acetylcholine at neuromuscular junctions and brain cholinergic synapses, and thus terminates signal transmission. It is also found on the red blood cell membranes, where it constitutes the Yt blood group antigen. Acetylcholinesterase exists in multiple molecular forms which possess similar catalytic properties, but differ in their oligomeric assembly and mode of cell attachment to the cell surface. It is encoded by the single ACHE gene, and the structural diversity in the gene products arises from alternative mRNA splicing, and post-translational associations of catalytic and structural subunits. The major form of acetylcholinesterase found in brain, muscle and other tissues is the hydrophilic species, which forms disulfide-linked oligomers with collagenous, or lipid-containing structural subunits. The other, alternatively spliced form, expressed primarily in the erythroid tissues, differs at the C-terminal end, and contains a cleavable hydrophobic peptide with a GPI-anchor site. It associates with the membranes through the phosphoinositide (PI) moieties added post-translationally.

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<b>Storage</b>	The protein is stored in PBS buffer at -20 oC. Repeated freezethaw cycles should be avoided.
<b>Storage Buffer</b>	1M PBS (58mM Na <sub>2</sub> HPO <sub>4</sub> , 17mM NaH <sub>2</sub> PO <sub>4</sub> , 68mM NaCl, pH8. ) added with 300mM Imidazole and 0.7% Sarcosyl, 15%glycerol.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	ACHE?acetylcholinesterase [?Homo sapiens?(human) ]
<b>Official Symbol</b>	ACHE
<b>Synonyms</b>	ACHE; YT; ACEE; ARACHE; N-ACHE; acetylcholinesterase; Yt blood group; apoptosis-related acetylcholinesterase; EC 3.1.1.7
<b>Gene ID</b>	43
<b>mRNA Refseq</b>	NM_000665
<b>Protein Refseq</b>	NP_000656
<b>MIM</b>	100740
<b>UniProt ID</b>	P22303
<b>Chromosome Location</b>	7q22
<b>Pathway</b>	ATF-2 transcription factor network; Acetylcholine Synthesis; Biogenic Amine Synthesis
<b>Function</b>	acetylcholine binding; acetylcholinesterase activity; beta-amyloid binding

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