Recombinant Human ACHE, GST-tagged

Cat. No. ACHE-9289H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ACHE protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-351a.a.
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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Storage	The protein is stored in PBS buffer at -20℃. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na2HPO4,17mM NaH2PO4, 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100,15%glycerol.

GENE INFORMATION

Gene Name	ACHE acetylcholinesterase [Homo sapiens]
Official Symbol	ACHE
Synonyms	ACHE; acetylcholinesterase; acetylcholinesterase (YT blood group) , acetylcholinesterase (Yt blood group) , YT; Yt blood group; apoptosis-related acetylcholinesterase; YT; ACEE; ARACHE; N-ACHE;
Gene ID	43
mRNA Refseq	NM_000665
Protein Refseq	NP_000656
MIM	100740
UniProt ID	P22303
Chromosome Location	7q22
Pathway	ATF-2 transcription factor network, organism-specific biosystem; Acetylcholine Synthesis, organism-specific biosystem; Biogenic Amine Synthesis, organism-specific

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	biosystem; Cholinergic synapse, organism-specific biosystem; Glycerophospholipid metabolism, organism-specific biosystem; Glycerophospholipid metabolism, conserved biosystem; Monoamine Transport, organism-specific biosystem;
Function	acetylcholine binding; acetylcholine binding; acetylcholinesterase activity; acetylcholinesterase activity; beta-amyloid binding; carboxylesterase activity; cholinesterase activity; collagen binding; hydrolase activity; laminin binding; protein binding; p

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