

# Recombinant Human ACHE Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. ACHE-1175H Lot. No. (See product label)

## SPECIFICATION

### Product Overview

ACHE MS Standard C13 and N15-labeled recombinant protein (NP\_056646) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

### Species

Human

### Source

HEK293

### 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. AChE activity may constitute a sensitive biomarker of RBC ageing in vivo, and thus, may be of aid in understanding the effects of transfusion

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<b>Molecular Mass</b>	67.38 kDa
<b>AA Sequence</b>	<p>MRPPQCLLHTPSLASPLLLLLLWLLGGGVGAEGREDAELLVTVRGGRLRGIRLKT            GPVSAFLGIPFAEPPMGP RRFLPPEPKQPWSGVVDATTFQSVCYQYVDTLYPGFEG            TEMWNP NRELSEDCLYLNWTPYPRPTSPTPVLVWIYGGGFYSGASSLDVYDGRF            LVQAERTVLVSMNYRVGAFGLALPGSREAPGNVGLLDQRLALQWVQENVAAFGG            DPTSVTLFGESAGAASVGMHLLSPPSRGLFHRAVLQSGAPNGPWATVGMGEARRR            ATQLAHLVGCPPGGTGGNDTELVACLRTRPAQVLVNHEWHVLPQESVFRFSFV            VPDGDFLSDTPEALINAGDFHGLQVLVGVVKDEGSYFLVYGAPGFSKDNESLISRAEF            LAGVRVGV PQVSDLAAEAVVLHYTDWLHPEDPARLREALSDVVDHNVVCPVAQL            AGR LAAQGARVYAYVFEHRASTLSWPLWMGVPHGYEIEFIFGIPLDPSRNYTAEKI            FAQRLMRYWANFARTGDPNEPRDPKAPQWPPYTAGAQQYVSLDLRPLEVRRGLR            AQACAFWNRFLPKLLSATASEAPSTCPGFTHGEAAPRGLPLPLLLLHQLLLLFLSHL            RRLTRTRPLEQKLISEEDLAANDILDYKDDDDKV</p>
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Stability</b>	Stable for 3 months from receipt of products under proper storage and handling conditions.
<b>Storage</b>	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
<b>Concentration</b>	50 µg/mL as determined by BCA
<b>Storage Buffer</b>	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

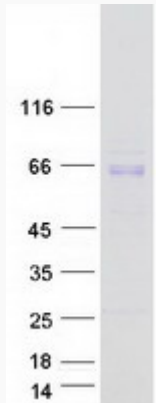
## GENE INFORMATION

<b>Gene Name</b>	ACHE acetylcholinesterase [ Homo sapiens (human) ]
<b>Official Symbol</b>	ACHE

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<b>Synonyms</b>	ACHE; acetylcholinesterase; acetylcholinesterase (YT blood group), acetylcholinesterase (Yt blood group), YT; Yt blood group; apoptosis-related acetylcholinesterase; YT; ACEE; ARACHE; N-ACHE;
<b>Gene ID</b>	43
<b>mRNA Refseq</b>	NM_015831
<b>Protein Refseq</b>	NP_056646
<b>MIM</b>	100740
<b>UniProt ID</b>	P22303
<b>SDS-PAGE</b>	

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