

Product datasheet for PH311249

Acetylcholinesterase (ACHE) (NM_015831) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	ACHE MS Standard C13 and N15-labeled recombinant protein (NP_056646)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC211249
Predicted MW:	67.38 kDa
Protein Sequence:	>RC211249 representing NM_015831 Red=Cloning site Green=Tags(s)

MRPPQCLLHTPSLASPLLLLLLWLLGGGVGAEGREDAELLVTVRGRLRGIRLKTGGPVSAFLGIPFAE
PPMGPRRFLPPEPKQPWSGVVDATTFQSVCYQYVDTLYPGFEGTEMWNPNSREDCLYLNVWTPYPRPT
SPTPVLVWIYGGGFYSGASSLDVYDGRFLVQAERTVLVSMNYRVGAFGLALPGSREAPGNVGLLDQRLA
LQWVQENVAAFGGDPTSVTLFGESAGAASVGMHLLSPPSRGLFHRVAVLQSGAPNGPWATVGMGEARRRAT
QLAHLVGCPPGGTGGNDTELVACLRTRPAQVLVNHEWHVLPQESVFRFSFVPVVDGDFLSDTPEALINAG
DFHGLQVLVGVVKDEGSYFLVYGAPGFSKDNESLISRAEFLAGVRVGVQVSDLAAEAVVLHYTDWLHPE
DPARLREALSDVVGDHNVVCPVAQLAGRLAAQGARVYAYVFEHRASTLSWPLWMGVPHGYEIEFIFGIPL
DPSRNYTAEKIFAQRLMRYWANFARTGDPNEPRDPKAPQWPPYTAGAQYVSLDLRPLEVRRGLRAQAC
AFWNRFLPKLLSATASEAPSTCPGFTHGEAAPRGLPLPLLLHQLLLLFLSHLRRL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_056646
RefSeq Size:	2978
RefSeq ORF:	1851



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Synonyms: ACEE; ARACHE; N-ACHE; YT

Locus ID: 43

UniProt ID: [P22303](#)

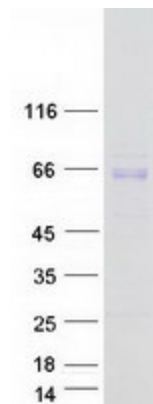
Cytogenetics: 7q22.1

Summary: 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[provided by RefSeq, Sep 2019]

Protein Families: Druggable Genome

Protein Pathways: Glycerophospholipid metabolism

Product images:



Coomassie blue staining of purified ACHE protein (Cat# [TP311249]). The protein was produced from HEK293T cells transfected with ACHE cDNA clone (Cat# [RC211249]) using MegaTran 2.0 (Cat# [TT210002]).