

Native Human ACHE

Cat. No. ACHE-8345H **Lot. No.** (See product label)

SPECIFICATION

Product Overview Native Human ACHE was purified from Human erythrocytes.

Species Human

Source Human Erythrocyte

Description Acetylcholinesterase (AChE) is involved in cholinergic transmission, where it catalyses the hydrolysis of the neurotransmitter acetylcholine. A membrane-bound protein on the post-synaptic membrane. Also found in some non-neuronal cells, such as erythrocytes where its function is unclear. The erythrocyte enzyme extracted from the membrane anchor, using Triton-X 100, has a molecular weight 160,000. AChE is the target the organophosphorus insecticides such as parathion and malathion, all of which irreversibly inhibit the enzyme. Depressed levels of AChE activity is a sensitive indicator of exposure to these agents. It is also the target of anti-Alzheimer's drugs such as tacrine, which are reversible inhibitors of the enzyme. Raised levels of AChE in amniotic fluid are indicative of foetal neural tube defects.

Unit Definition One unit will hydrolyse one micromole of Acetylthiocholine Iodide per minute at 37°C and pH 7.4.

Concentration >450 U/mg

GENE INFORMATION

Gene Name [ACHE acetylcholinesterase \[Homo sapiens \]](#)

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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 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; protein homodimerization activity; protein homodimerization activity; protein self-association; serine hydrolase activity;

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