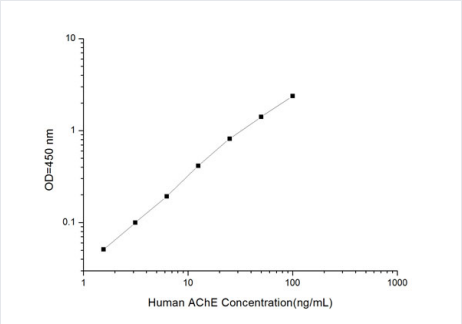
Ache ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	AChE, ELISA Kit
Full Product Name	Human AChE (Acetylcholinesterase) ELISA Kit
Product Gene Name	AChE elisa kit
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, Plasma, Biological Fluids
Detection Range	1.563-100ng/mL
Sensitivity	Min: 0.938ng/mL; Max: 100ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Human AChE. No significant cross-reactivity or interference between Human AChE and analogues was observed. Note: Limited by current skills and knowledge, it is impossible for us to complete the cross- reactivity detection between Human AChE and all the analogues, therefore, cross reaction may still exist.
Preparation and Storage	Store at 4 degree C.
Molecular Weight	58,352 Da
OMIM	100740
3D Structure	ModBase 3D Structure for P22303
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for AChE elisa kit	**Description:** The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of AChE in human serum, plasma and other biological fluids **Principle of the Assay:** This ELISA kit uses Sandwich-ELISA as the method. The micro ELISA plate provided in this kit has been pre-coated with an antibody specific to Human AChE. Standards or samples are added to the appropriate micro ELISA plate wells and bound by the specific antibody. Then a biotinylated detection antibody specific for Human AChE and Avidin-Horseradish Peroxidase (HRP) conjugate is added to each micro plate well successively and incubated. Free components are washed away. The substrate solution is added to each well. Only those wells that contain Human AChE, biotinylated detection antibody and Avidin-HRP conjugate will appear blue in color. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color turns yellow. The optical density (OD) is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The OD value is proportional to the concentration of Human AChE. You can calculate the concentration of Human AChE in the samples by comparing the OD of the samples to the standard curve.
Other Notes	Small volumes of AChE elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for AChE purchase	MBS2503020 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the AChE, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing AChE. The ELISA analytical biochemical technique of the MBS2503020 kit is based on AChE antibody-AChE antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect AChE antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, AChE. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of AChE elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for AChE. It may not necessarily be applicable to this product.

NCBI GI #	545225
NCBI GeneID	43
NCBI Accession #	AAC60618.1
UniProt Primary Accession #	P22303
UniProt Secondary Accession #	Q16169; Q29S23; Q2M324; Q504V3; Q53F46; Q86TM9; Q86YX9; Q9BXP7; A4D2E2; B7ZKZ0; D6W5X7
UniProt Related Accession #	P22303
NCBI Official Full Name	acetylcholinesterase, partial
NCBI Official Synonym Full Names	acetylcholinesterase (Yt blood group)
NCBI Official Symbol	ACHE
NCBI Official Synonym Symbols	YT; ACEE; ARACHE; N-ACHE
UniProt Protein Name	Acetylcholinesterase
Protein Family	Achelase
UniProt Gene Name	ACHE
UniProt Synonym Gene Names	AChE
UniProt Entry Name	ACES_HUMAN
NCBI Protein Information	acetylcholinesterase; Yt blood group; apoptosis-related acetylcholinesterase
NCBI Summary for AChE	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. [provided by RefSeq, Jul 2008]

UniProt Comments for AChE	ACHE: Terminates signal transduction at the neuromuscular junction by rapid hydrolysis of the acetylcholine released into the synaptic cleft. Role in neuronal apoptosis. Belongs to the type-B carboxylesterase/lipase family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Hydrolase; Membrane protein, GPI anchor; EC 3.1.1.7; Lipid Metabolism - glycerophospholipid Chromosomal Location of Human Ortholog: 7q22 Cellular Component: Golgi apparatus; extracellular space; cell surface; membrane; perinuclear region of cytoplasm; plasma membrane; extracellular region; synapse; basal lamina; neuromuscular junction; cell junction; nucleus Molecular Function: collagen binding; protein binding; serine hydrolase activity; protein homodimerization activity; protein self-association; cholinesterase activity; hydrolase activity; beta-amyloid binding; laminin binding; acetylcholinesterase activity; acetylcholine binding Biological Process: negative regulation of synaptic transmission, cholinergic; nervous system development; muscle development; acetylcholine catabolic process in synaptic cleft; acetylcholine catabolic process; glycerophospholipid biosynthetic process; osteoblast development; synaptic transmission; cell proliferation; synaptogenesis; positive regulation of protein secretion; amyloid precursor protein metabolic process; retina development in camera-type eye; phospholipid metabolic process; neurotransmitter receptor biosynthetic process; receptor internalization; response to wounding; phosphatidylcholine biosynthetic process; regulation of receptor recycling; cell adhesion; DNA replication; protein tetramerization; neurotransmitter biosynthetic process Disease: Yt Blood Group Antigen
Research Articles on AChE	**1.** The results showed that AChE clusters colocalized with neurexin assemblies in the neurites of hippocampal neurons.
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