



# Rat Acetylcholinesterase, AChE ELISA Kit

<b>Product Code</b>	CSB-E11304r
<b>Abbreviation</b>	ACHE
<b>Protein Biological Process 1</b>	Neurobiology
<b>Target Name</b>	acetylcholinesterase (Yt blood group)
<b>Uniprot No.</b>	P37136
<b>Alias</b>	ARACHE, N-ACHE, YT, OTTHUMP00000211347 OTTHUMP00000211349 OTTHUMP00000211356 acetylcholinesterase apoptosis-related acetylcholinesterase
<b>Product Type</b>	ELISA Kit
<b>Immunogen Species</b>	Rattus norvegicus (Rat)
<b>Protein Biological Process 3</b>	Neurotransmitter degradation
<b>Sample Types</b>	serum, plasma, tissue homogenates
<b>Detection Range</b>	7.8 pg/mL-500 pg/mL
<b>Sensitivity</b>	1.95 pg/mL
<b>Assay Time</b>	1-5h
<b>Sample Volume</b>	50-100ul
<b>Detection Wavelength</b>	450 nm
<b>Lead Time</b>	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
<b>Research Area</b>	Neuroscience
<b>Gene Names</b>	Ache
<b>Tag Info</b>	quantitative
<b>Protein Description</b>	Sandwich

**Description**

This Rat ACHE ELISA Kit was designed for the quantitative measurement of Rat ACHE protein in serum, plasma, tissue homogenates. It is a Sandwich ELISA kit, its detection range is 7.8 pg/mL-500 pg/mL and the sensitivity is 1.95 pg/mL .

**Target Details**

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.

**Product Precision**

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

**Linearity**

To assess the linearity of the assay, samples were spiked with high concentrations of rat AChE in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:100	Average %	92
	Range %	88-95
1:200	Average %	96
	Range %	90-101
1:400	Average %	94
	Range %	90-97
1:800	Average %	99
	Range %	95-103

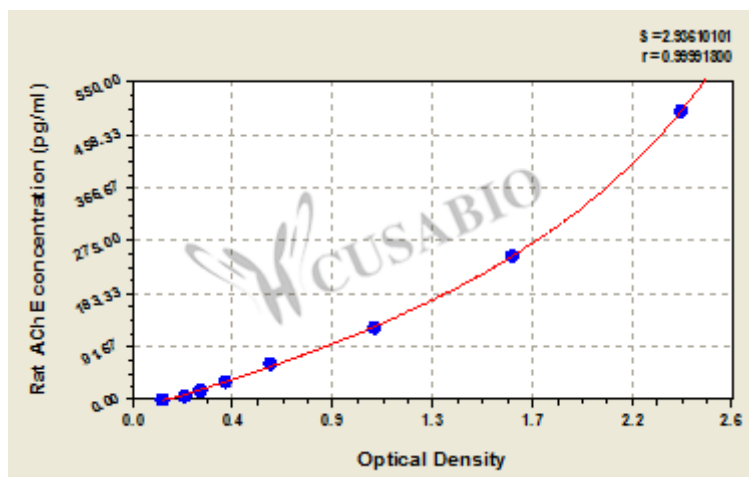
**Recovery**

The recovery of rat AChE spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	95	91-99
EDTA plasma (n=4)	92	87-96

**Typical**

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
500	2.361	2.384	2.373	2.232
250	1.636	1.658	1.647	1.506
125	1.044	1.057	1.051	0.910
62.5	0.610	0.599	0.605	0.464
31.2	0.413	0.404	0.409	0.268
15.6	0.305	0.297	0.301	0.160
7.8	0.237	0.228	0.233	0.092
0	0.142	0.140	0.141	?

## Msds

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