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Datasheet for ABIN7320239

## Acetylcholinesterase Protein (AChE) (His tag)

### 1 Image

#### Overview

Quantity:	20 µg
Target:	Acetylcholinesterase (AChE)
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Acetylcholinesterase protein is labelled with His tag.

#### Product Details

Purpose:	Recombinant Mouse Acetylcholinesterase/ACHE Protein (His Tag)(Active)
Sequence:	Met 1-Leu 614
Characteristics:	A DNA sequence encoding the mouse ACHE (NP_033729.1) (Met 1-Leu 614) was expressed, with a polyhistidine tag at the C-terminus.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to cleave Acetylthiocholine. The specific activity is > 250 nmols/min/µg.

#### Target Details

Target:	Acetylcholinesterase (AChE)
Alternative Name:	Acetylcholinesterase/ACHE ( <a href="#">AChE Products</a> )

## Target Details

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Background:	<p>Background: Acetylcholinesterase, also known as ACHE, is an enzyme that degrades (through its hydrolytic activity) the neurotransmitter acetylcholine, producing choline and an acetate group. Acetylcholinesterase plays a crucial role in nerve impulse transmission at cholinergic synapses by rapid hydrolysis of the neurotransmitter acetylcholine (ACh). ACHE appears to be a potential therapeutic target at muscle injuries including organophosphate myopathy. It is an externally oriented membrane-bound enzyme and its main physiological role is termination of chemical transmission at cholinergic synapses and secretory organs by rapid hydrolysis of the neurotransmitter acetylcholine (ACh). ACHE plays important roles in the cholinergic system, and its dysregulation is involved in a variety of human diseases. ACHE was significantly down-regulated in the cancerous tissues of 69.2 % of hepatocellular carcinoma (HCC) patients, and the low ACHE expression in HCC was correlated with tumor aggressiveness, an elevated risk of postoperative recurrence, and a low survival rate. Both the recombinant ACHE protein and the enhanced expression of ACHE significantly inhibited HCC cell growth in vitro and tumorigenicity in vivo. ACHE as a tumor growth suppressor in regulating cell proliferation, the relevant signaling pathways, and the drug sensitivity of HCC cells. Thus, ACHE is a promising independent prognostic predictor for HCC recurrence and the survival of HCC patients. ACHE is responsible for the hydrolysis of acetylcholine in the nervous system. It is inhibited by organophosphate and carbamate pesticides. However, this enzyme is only slightly inhibited by organophosphorothionates.</p> <p>Synonym: mE1a, mE1b, mE1c, mE1c-long, mE1d, mE1d', mE1e</p>
Molecular Weight:	66.2 kDa
NCBI Accession:	<a href="#">NP_033729</a>
Pathways:	<a href="#">Skeletal Muscle Fiber Development</a>

## Application Details

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Restrictions:	For Research Use only
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## Handling

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Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C, -20 °C, -80 °C

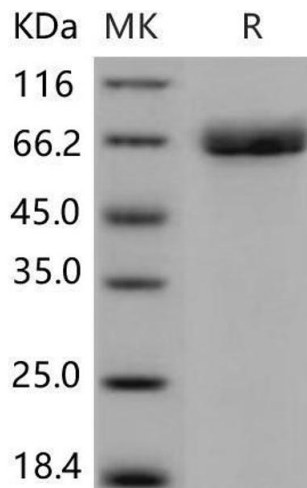
## Handling

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Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

## Images

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### Western Blotting

Image 1.