

Native Electrophorus electricus (electric eel) Acetylcholinesterase

Cat. No. NATE-0018

Lot. No. (See product label)

Introduction

- Description** Acetylcholinesterase, also known as AChE or acetylhydrolase, is a hydrolase that hydrolyzes the neurotransmitter acetylcholine. AChE is found at mainly neuromuscular junctions and cholinergic brain synapses, where its activity serves to terminate synaptic transmission. It belongs to carboxylesterase family of enzymes. It is the primary target of inhibition by organophosphorus compounds such as nerve agents and pesticides.
- Applications** The enzyme has been used as a reference to to evaluate the effect of aspartame metabolites on hippocampal acetylcholinesterase activity. The enzyme has also been used in immobilization studies for the rapid detection of acetylthiocholine chloride.
- Synonyms** true cholinesterase; choline esterase I; cholinesterase; acetylthiocholinesterase; acetylcholine hydrolase; acetyl; β -methylcholinesterase; AcCholE; EC 3.1.1.7; 9000-81-1; Acetylcholinesterase; AChE; acetylhydrolase

Product Information

- Source** Electrophorus electricus (electric eel)
- Form** lyophilized powder
- EC Number** EC 3.1.1.7
- CAS No.** 9000-81-1
- Molecular Weight** 280 kDa
- Activity** > 1 ,000 units/mg protein; 200-1 ,000 units/mg protein
- Isoelectric point** ~5.3
- Buffer** Tris buffer: soluble 1 mg/mL (0.02 M Tris buffer, pH 7.5)
- Unit Definition** One unit will hydrolyze 1.0 μ mole of acetylcholine to choline and acetate per min at pH 8.0 at 37°C.

Storage and Shipping Information

- Storage** -20°C