abcam

Product datasheet

Acetylcholinesterase Assay Kit (Fluorometric - Green) ab138872

2 References 1 图像

概述

产品名称 Acetylcholinesterase Assay试剂盒(Fluorometric - Green)

检**测方法** Fluorescent

样品类型 Cell culture extracts, Whole Blood

检测类型 Enzyme activity

灵敏度 0.1 mU/ml

种属反应性 与反应: Mammals, Other species

产品概述

Acetylcholinesterase Assay Klt (Fluorometric - Green) (ab138872) uses an outstanding Thiol Green Indicator to quantify the thiocholine produced from the hydrolysis of acetylthiocholine by AChE in blood, in cell extracts, and in other solutions. Thiol Green Indicator is not fluorescent until reacted with a thiol group. It has spectral properties similar to those of fluorescein, making this assay compatible with almost every fluorescence instrument. The fluorescence intensity of Thiol Green Indicator is used to measure AChE activity. Compared to the existing thiol probes (e.g., mBBr and bBBr), Thiol Green Indicator is much more sensitive.

This product is an optimized "mix-and-read" assay that provides an ultrasensitive fluorometric one-step protocol to detect as little as 0.01mU AChE in a 100 μ l assay volume (0.1 mU/ml). The assay can be performed in a convenient 96-well or 384-well microtiter-plate format. Its signal can be easily read by a fluorescence microplate reader at Ex/Em = 490/520 nm.

Please note this product does not differentiate between acetylcholesterase (AchE) or butyrylcholinesterase (BChE) activity as both enzymes can hydrolyze acetylcholine.

If you are looking for a colorimetric kit, we recommend <u>Acetylcholinesterase Assay Kit</u> (<u>Colorimetric</u>) (<u>ab138871</u>). If your plate reader has a filter to measure red fluorescace (Ex/Em = 540/590 nm), you can use <u>Acetylcholinesterase Assay Kit</u> (<u>Fluorometric - Red</u>) (<u>ab138873</u>).

Acetylcholinesterase (AChE) is one of the most crucial enzymes for nerve response and function. AChE degrades the neurotransmitter acetylcholine (ACh) into choline and acetic acid. It is mainly found at neuromuscular junctions and cholinergic synapses in the central nervous system, where

说明

its activity serves to terminate the synaptic transmission. AChE inhibitors are among the key drugs approved for Alzheimer's disease (AD) and myasthenia gravis.

平台

Microplate reader

性能

存放说明

Store at -20°C. Please refer to protocols.

组件	200 tests
Acetylcholinesterase Standard	1 vial
Acetylthiocholine	1 vial
Assay Buffer	1 x 25ml
DMSO	1 x 100µl
Thiol Green Indicator	1 vial

功能

Terminates signal transduction at the neuromuscular junction by rapid hydrolysis of the

acetylcholine released into the synaptic cleft. Role in neuronal apoptosis.

组织特异性

Isoform H is highly expressed in erythrocytes.

序列相似性

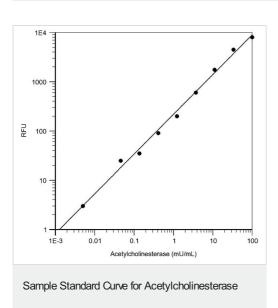
Belongs to the type-B carboxylesterase/lipase family.

细胞定位

Cell membrane; Cell junction > synapse. Secreted. Cell membrane and Nucleus. Only observed in

apoptotic nuclei.

图片



Acetylcholinesterase dose response was measured in a solid black 96-well plate with ab138872 using a fluorescence microplate reader. As low as 0.01 mU/well of acetylcholinesterase can be detected with 20 minutes incubation (n=3).

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