abcam

Product datasheet

Acetyltransferase Activity Assay Kit (Fluorometric) ab204536

5 References 3 Images

Overview

Product name Acetyltransferase Activity Assay Kit (Fluorometric)

Detection method Fluorescent

Sample type Purified protein, Inhibitor compounds

Product overview Acetyltransferase Activity Assay Kit (Fluorometric) (ab204536) is a homogeneous mix-and-read

fluorescent assay for the determination of any acetyl-CoA dependent acetyltransferase activity. It is suitable for end-point or kinetic read options, which is ideal for determining mechanism of action, kinetics, and screening candidate compounds. The assay is amendable to HTS and

miniaturization.

This assay is a complete kit for the screening of candidate compounds that can alter normal

acetyltransferase activity. For use with purified in vitro samples.

NotesAcetylation is an important covalent molecular modification. Originally identified as the method by

which certain bacteria were able to deactivate anti-microbial compounds, acetylation is now also

known as an important partitioning and signaling modification.

Acetyltransferases are enzymes that covalently transfer an acetyl group from a donor molecule (Acetyl CoA) to an acceptor. Acetyl CoA serves as a universal donor while the acceptor varies with the acetyltransferase. Acceptors include histones, kinases, transcription factors, receptors,

neurotransmitter precursors like choline and serotonin, and anti-microbial agents like

chloramphenicol and fluoroquinones. Acetylation can signal an increase or decrease in activity

based on the context of the message. Frequently located at critical junctions in metabolic pathways, Acetyltransferases and their regulation have become attractive therapeutic targets to

treat everything from insomnia to cancer.

Platform Microplate reader

Properties

Storage instructions Please refer to protocols.

Components	1 x 96 tests
Acetyltransferase Positive Control	1 x 200µl

1

Components	1 x 96 tests
Acetyltransferase Reaction Buffer Concentrate	1 x 100µl
Black Microtiter Plate	1 unit
Foil Plate Sealer	3 units
Transferase Assay Buffer Concentrate	1 x 15ml
Transferase Detection Solution Concentrate	1 x 150µl

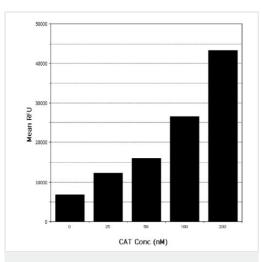
Sequence similarities

Belongs to the thiolase family.

Cellular localization

Cytoplasm.

Images



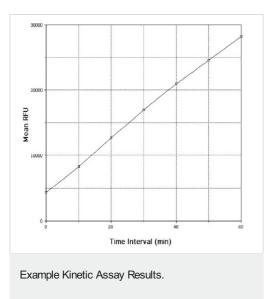
Chloramphenicol acetyltransferase (CAT) titration in acetyltransferase assay obtained using Abcam'sAcetyltransferase Activity Assay Kit (Fluorometric) (ab204536).

Chloramphenicol acetyltransferase (CAT) was titered in the assay using $100\mu M$ of the Substrate chloramphenicol. Serial dilutions of the enzyme were prepared in Transferase Assay Buffer. Mean relative fluorescence was plotted against CAT concentration to generate the following graph.

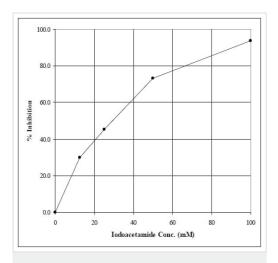
This is for illustration purposes only.

The investigator must titrate their enzyme / substrate system in the assay.

Based on this titration data, the acetyltransferase concentration of 100nM produces a maximum signal within the detection range of the plate reader, with a signal to noise ratio sufficient for easy detection of altered enzyme activity.



100nM CAT was tested with 100 μ M Chloramphenicol substrate in the kinetic assay format. Mean relative fluorescence was plotted against the stop time interval to generate this graph. Obtained using Abcam's Acetyltransferase Activity Assay Kit (Fluorometric) (ab204536).



Typical inhibition curve obtained using Abcam's Acetyltransferase Activity Assay Kit (Fluorometric) (ab204536).

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