abcam

Product datasheet

Aldehyde Assay Kit (Fluorometric) ab138882

5 References 5 Images

Overview

Product name	Aldehyde Assay Kit (Fluorometric)
Detection method	Fluorescent
Sample type	Saliva, Urine, Plasma, Cell Lysate, Cell culture media
Assay type	Quantitative
Sensitivity	3 µM
Species reactivity	**Reacts with:** Mammals, Other species
Product overview	Abcam's Aldehyde Quantification Assay Kit (Fluorometric) (ab138882) is used for quantifying aldehydes at higher pH by using a proprietary fluorogenic dye that generates a strongly fluorescent product upon reacting with an aldehyde. This fluorimetric kit provides a sensitive mix-and-read method to detect as little as 0.3 nanomole of aldehyde/100 µL assay volume (3 µM). The assay can be performed in a convenient 96-well or 384-well microtiter-plate format and easily adapted to automation without a separation step. Its signal can be read by a fluorescence microplate reader at Ex/Em = 365/435 nm.
Notes	The formation, reactivity and toxicity of aldehydes originating from the peroxidation of lipids of cellular membranes have received great attention in recent years. Rapid and accurate measurement of aldehydes is an important task for biological research, chemical research, food industry and environmental pollution surveillance. There are a few reagents or assay kits available for quantifying the number of aldehydes. Most of the existing aldehyde test methods are based on separations either by the tedious and expensive HPLC-MS or GC-MS.
Platform	Microplate reader

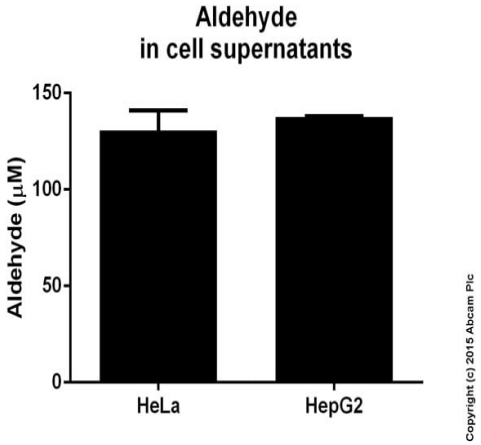
Properties

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

Components	200 tests
Aldehyde Blue Indicator	1 vial
Aldehyde Reaction Buffer	1 x 6ml
Aldehyde Standard	1 vial

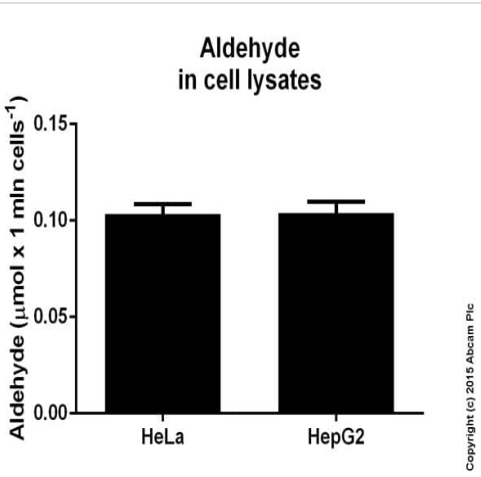
Components	200 tests
Assay Buffer	1 x 30ml
DMSO	1 x 100µl

Images



Aldehyde Quantification Assay Kit (ab138882)

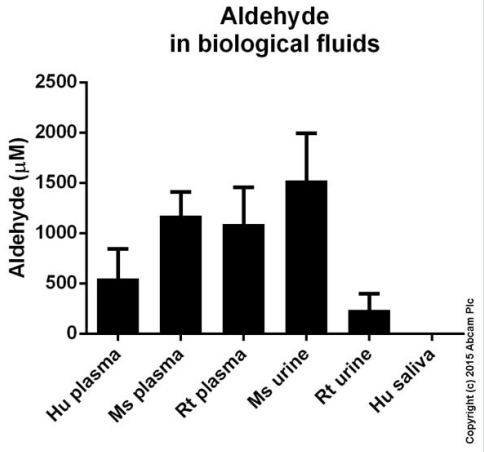
Aldehyde levels measured in cell supernatants (µM). Samples were diluted 2 fold.



Aldehyde Quantification Assay Kit (ab138882)

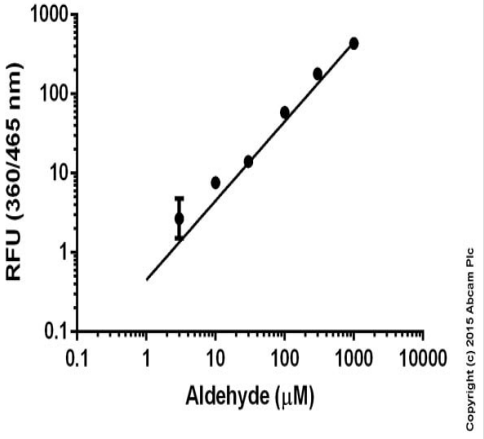
Aldehyde levels measured in cell lysates showing quantity (µmol) per 1 mln cells.

Samples with the concentration of 1e8 cells/mL (HepG2) and 1.28e8 cells/mL (HeLa) were used. Samples were diluted 100 fold.



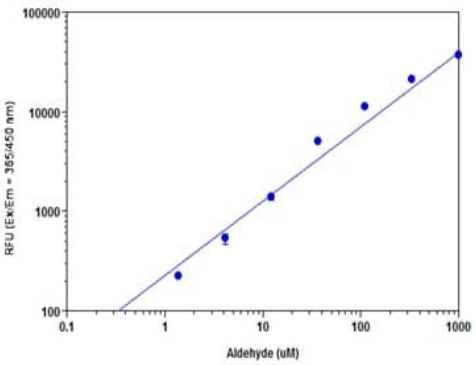
Aldehyde Quantification Assay Kit (ab138882)

Aldehyde levels measured in biological fluids (µM). Samples were diluted 1-10 fold.



Aldehyde Quantification Assay Kit (ab138882)

Standard curve: mean of duplicates (+/- SD) with background reads subtracted



Sample Standard Curve for Aldehyde

Aldehyde dose response was measured in a solid black 96-well plate with ab138882 using a fluorescence microplate reader. As low as 3 µM of aldehyde can be detected with 15 minutes incubation (n=3).

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