

Mitochondrial Aldehyde Dehydrogenase (ALDH2) Activity Assay Kit

Cat. No. Kit-0076 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

The kit is used to determine mitochondrial aldehyde dehydrogenase activity (ALDH2) in a sample. The enzyme is captured within the wells of the microplate and activity is determined by following the production of NADH in the following ALDH2 catalyzed reaction: $\text{acetaldehyde} + \text{NAD}^+ \rightarrow \text{acid} + \text{NADH}$. The generation of NADH is coupled to the 1:1 reduction of a reporter dye to yield a colored (yellow) reaction product whose concentration can be monitored by measuring the increase in absorbance at 450 nm (Dye molar extinction coefficient-37000 M⁻¹cm⁻¹). Kit-0076 immunocaptures in each well only native ALDH2 from the chosen sample; this removes all other enzymes, including unrelated aldehyde dehydrogenases.

Size

1 x 96 test

Applications

Functional Studies

Target Species

Reacts with: Mouse, Rat, Cow, Dog, Human

Storage

All components are shipped cold. Reagent dye, Coupler and NAD⁺ are shipped lyophilized. Before use rehydrate by adding 0.25 mL pure H₂O to each tube and vortex each tube thoroughly to dissolve. After hydration unused amounts of these three materials should be stored at -80°C. Store all other components store at 4°C. This kit is Stable for 6 months from receipt.

Kit Components

Components 1 x 96 tests 100X acetaldehyde (2.5 M) 1 x 0.25ml 100X Coupler 1 x

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0.25ml100X NAD+ 1 x 0.25ml100X Reagent Dye 1 x 0.25ml10X Blocking Buffer 1 x
6ml1X Base Buffer 1 x 24ml20X Buffer 1 x 20ml96 well microplate (12 strips) 1
unitExtraction Buffer 1 x 15ml

Detection method Colorimetric

**Compatible Sample
Types** Cell culture extracts, Tissue Extracts

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