

# Aconitase Activity Colorimetric Assay Kit

**Cat. No.** Kit-2265    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Aconitase (aconitate hydratase; EC 4.2.1.3) is an iron-sulfur protein containing an [Fe:S]<sub>2</sub> cluster that catalyzes the stereospecific isomerization of citrate to isocitrate via cis-aconitate in the tricarboxylic acid cycle, a non-redox-active process. Tissue contains two aconitases, a mitochondrial (m-) and a cytosolic (c-) aconitase. They are related, but distinctly different enzymes and are coded for on different chromosomes. Loss of aconitase activity in cells or other biological samples treated with pro-oxidants has been interpreted as a measure of oxidative damage. Aconitase Assay Kit is a highly sensitive, simple, direct and HTS-ready colorimetric assay for measuring Aconitase activity in biological samples. In the assay, citrate is converted by aconitase into isocitrate, which is further processed resulting in a product that converts a nearly colorless probe into an intensely colored form with a  $\lambda_{\text{max}}$  at 450nm.

### Storage

4°C

### Shipping

Gel Pack

### Size

100 assays

### Kit Components

Assay Buffer; Substrate; Developer; Enzyme Mix (200 $\mu$ l); Cysteine; (NH<sub>4</sub>)<sub>2</sub>Fe(SO<sub>4</sub>)<sub>2</sub>; Isocitrate Standard (10 $\mu$ mol)

### Target Species

Mammalian

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|                         |                      |
|-------------------------|----------------------|
| <b>Detection method</b> | Absorbance at 450 nm |
|-------------------------|----------------------|

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|--------------------------------|---------------------------------------------------------------------|
| <b>Features &amp; Benefits</b> | Simple procedure; takes ~ less than 40 minutes; Fast and convenient |
|--------------------------------|---------------------------------------------------------------------|

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