

# Alanine Aminotransferase Activity Colorimetric/Fluorometric Assay Kit

**Cat. No.** Kit-2209    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Alanine transaminase (ALT) is a transaminase enzyme (EC 2.6.1.2). It is also called serum glutamic pyruvic transaminase (SGPT) or alanine aminotransferase (ALAT). ALT is found in serum and in various bodily tissues, but is usually associated with the liver. It catalyzes the reaction:  $\alpha$ -ketoglutarate + alanine; glutamate + pyruvate. It is commonly measured clinically as a part of a diagnostic liver function test to determine liver health. Diagnostically, it is almost always measured in units/liter (U/L). In ALT Assay Kit, ALT catalyzes the transfer of an amino group from alanine to  $\alpha$ -ketoglutarate, the products of this reversible transamination reaction being pyruvate and glutamate. The pyruvate is detected in a reaction that concomitantly converts a nearly colorless probe to both color ( $\lambda_{\text{max}} = 570 \text{ nm}$ ) and fluorescence (Ex/Em = 535/587 nm). The kit provides a rapid, simple, sensitive, and reliable test suitable for high throughput activity assay of ALT with a detection limit of 10 mU per well.

### Applications

Evaluation of pentose phosphate pathway.

### Storage

-20°C

### Shipping

Gel Pack

### Size

100 assays

### Kit Components

ALT Assay Buffer; OxiRed Probe (in DMSO); ALT Enzyme Mix; ALT Substrate; Pyruvate Standard (100 nmol/ $\mu$ l); ALT positive control

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|                                |                                                                                                                                                                                   |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Target Species</b>          | Mammalian                                                                                                                                                                         |
| <b>Detection method</b>        | Absorbance (570 nm) or Fluorescence (Ex/Em 535/587 nm)                                                                                                                            |
| <b>Features &amp; Benefits</b> | Simple procedure;<br>Fast and convenient;<br>Sensitive assays for measuring ALT activity in various biological samples and the kit is also suitable for high throughput analyses. |

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