

## L-Alanine Assay Kit

### Product Information

#### Cat.No.

Kit-0502

#### Product Overview

L-Alanine Assay Kit is a quantitative colorimetric/fluorimetric determination of L-alanine at OD570, FL530/585 nm.

#### Description

ALANINE, a nonessential amino acid, is utilized in the glucose-alanine cycle between tissues and the liver. In tissues that metabolize amino acids, amino groups are collected as glutamate by transamination. The amine group is then transferred by alanine transaminase (ALT) from glutamate to pyruvate to form alanine and  $\alpha$ -ketoglutarate. The alanine generated is transported to the liver where a reverse ALT reaction occurs and pyruvate is regenerated. Pyruvate is converted through gluconeogenesis to glucose which can then be recirculated to the tissues. Alanine concentration may have some correlation with high blood pressure, energy intake, cholesterol levels and body mass index.

#### Applications

Direct Assays: alanine levels in plasma, serum, urine, tissue and culture media. Drug Discovery/Pharmacology: effects of drugs on alanine metabolism.

#### Usage

For research use only (RUO)

#### Storage

Store all kit components at  $-20^{\circ}\text{C}$ . Shelf life of six months after receipt.

#### Kit Components

Developer 6 mL ALT Enzyme 120  $\mu\text{L}$  Dye Reagent 120  $\mu\text{L}$  Co-substrate 600  $\mu\text{L}$  Alanine Standard 400  $\mu\text{L}$

**Detection method** Colorimetric, Fluorimetric

#### Compatible Sample Types



CREATIVE **BIOMART**<sup>®</sup>  
Assay Kit

## L-Alanine Assay Kit

Culture Medium, Plasma, Serum, Tissue, Urine

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### Features & Benefits

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Sensitive and accurate. Linear detection range in 96-well plate: 1 to 200  $\mu$ M alanine for colorimetric assays and 0.4 to 20  $\mu$ M for fluorimetric assays.

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