CREATIVE BIOMART®
Assay Kit

L-Alanine Assay Kit II

Product Information

Cat.No. Kit-0503

Product Overview

L-Alanine Assay Kit is used for detecting alanine.

Description

Alanine is the 2nd most abundant of the 20 proteinogenic amino acids. Nonessential, being available from dietary sources, it plays a key role in the glucose-alanine cycle between tissues and liver. In muscle and other tissues that degrade amino acids, amino groups are pooled as glutamate by transamination. Glutamate then transfers the amino group to pyruvate via alanine aminotransferase, forming alanine and a-ketoglutarate. The alanine is passed into the blood and transported to the liver. A reverse of the alanine aminotransferase reaction takes place in liver. Pyruvate can be used in gluconeogenesis, to form glucose which may return to other tissues through the circulatory system. There appears to be a correlation between alanine levels and and higher blood pressure, energy intake, cholesterol levels, and body mass index. The L-Alanine Assay Kit provides a sensitive detection method of alanine. In the kit, alanine is converted to pyruvate which is specifically detected leading to proportional color (λ=570nm: 0-10 nmol) or fluorescence (Ex/Em 535/587nm: 0-1 nmol) development. Serum concentration: ~24-76 µg/ml (~3-9 nmol/10 µl).

Target Species

Mammals

Usage

For research use only (RUO)

Storage

Store kit at -20°C, protect from light. Allow Assay Buffer to warm to room temperature before use. Briefly centrifuge vials before opening. Read the entire protocol before performing the assay.

Kit Components

Alanine Assay Buffer 25 mlAlanine Probe (in DMSO) 0.2 mlAlanine Converting Enzyme: lyophilized 1

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vialAlanine Development Mix: lyophilized 1 vialAlanine Standard (10 µmol): lyophilized 1 vial

Detection method Colorimetric, Fluorometric

Compatible Sample Types

Biological Fluid, Cell Culture Supernatant, Plasma, Serum, Tissue Culture Supernatant, Urine

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