bio-techne
TOCRIS

Print Date: Feb 13th 2025

Certificate of Analysis

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Product Name: **Lac-Phe** **Catalog No.: 7942** **Batch No.: 1**

CAS Number: 183241-73-8

IUPAC Name: *N*-[(2*S*)-2-Hydroxy-1-oxopropyl]-L-phenylalanine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{12}H_{15}NO_4$.

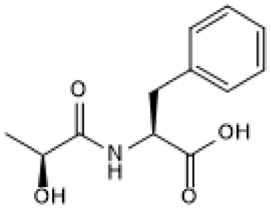
Batch Molecular Weight: 237.26

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 95.4% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	60.75	6.37	5.9
Found	61.14	6.33	5.88

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Product Information

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IUPAC Name: *N*-[(2*S*)-2-Hydroxy-1-oxopropyl]-L-phenylalanine

Description:

Lac-Phe is a metabolite generated from lactate and phenylalanine by cytosolic non-specific dipeptidase (CNDP2) during intense exercise. Lac-Phe reduces food intake in diet-induced obese mice without affecting movement or energy expenditure. When administrated chronically, Lac-Phe decreases adiposity and body weight and improves glucose homeostasis.

Physical and Chemical Properties:

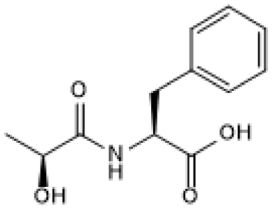
Batch Molecular Formula: $C_{12}H_{15}NO_4$.

Batch Molecular Weight: 237.26

Physical Appearance: White solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Li *et al* (2022) An exercise-inducible metabolite that suppresses feeding and obesity. Nature ***606*** 785. PMID: 35705806.

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