

Certificate of Analysis

Print Date: Sep 3rd 2024

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Product Name: Diprotin A Catalog No.: 6019 Batch No.: 4

CAS Number: 90614-48-5

IUPAC Name: L-Isoleucyl-L-prolyl-L-isoleucine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{17}H_{31}N_3O_4.1\frac{1}{4}H_2O$

Batch Molecular Weight: 363.97

Physical Appearance: White solid

Solubility: water to 100 mM Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

Microanalysis:

HPLC: Shows 98.1% purity

Mass Spectrum: Consistent with structure

Carbon Hydrogen Nitrogen

Theoretical 56.1 9.28 11.55 Found 55.66 9.51 11.38



Product Information

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CAS Number: 90614-48-5

IUPAC Name: L-Isoleucyl-L-prolyl-L-isoleucine

Description:

Diprotin A is a dipeptidyl peptidase IV (DPP-IV) inhibitor. Inhibits hydrolysis of incretins, regulating blood glucose levels. Induces Src and vascular endothelium-cadherin phosphorylation, increasing vascular permeability in the retina. Also increases number of viable phenotypic long term repopulating hematopoietic stem cells when harvesting mouse bone marrow in aerobic conditions.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₇H₃₁N₃O₄.11/4H₂O

Batch Molecular Weight: 363.97 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

water 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:

Lee et al (2016) Dipeptidyl peptidase-4 inhibitor increases vascular leakage in retina through VE-cadherin phosphorylation. Sci.Rep. 6 29393. PMID: 27381080.

Lim *et al* (2015) Role of dipeptidyl peptidase-4 inhibitors in new-onset diabetes after transplantation. Korean J.Intern.Med. **30** 759. PMID: 26552451.

Juillerat-Jeanneret *et al* (2014) Dipeptidyl peptidase IV and its inhibitors: therapeutics for type 2 diabetes and what else? J.Med.Chem. **57** 2197. PMID: 24099035.

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