

Product Name: DPPI 1c hydrochloride

Catalog No.: 2783

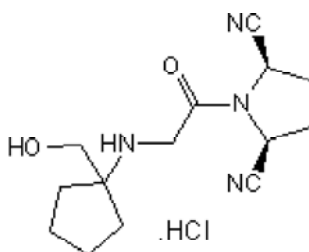
Batch No.: 4

CAS Number: 866396-70-5

IUPAC Name: 1-[[[(1-Hydroxymethyl)cyclopentyl]amino]acetyl]-2,5-*cis*-pyrrolidinedicarbonitrile hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₂₀N₄O₂.HCl
Batch Molecular Weight: 312.8
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 25 mM
 water to 50 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.37 (10% MeOH/CHCl₃+NH₄OH (3 drops))
HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
 Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.76	6.77	17.91
Found	53.42	6.66	17.92

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

Product Name: DPPI 1c hydrochloride

Catalog No.: 2783

Batch No.: 4

CAS Number: 866396-70-5

IUPAC Name: 1-[[[(1-Hydroxymethyl)cyclopentyl]amino]acetyl]-2,5-*cis*-pyrrolidinedicarbonitrile hydrochloride

Description:

Inhibitor of dipeptidyl peptidase IV (DPP-IV) ($IC_{50} = 104$ nM) that displays selectivity over enzymes with DPP-like activity ($IC_{50} > 30$ μ M). Increases plasma GLP-1 levels and improves glucose tolerance in diabetic mice following oral glucose challenge.

Physical and Chemical Properties:

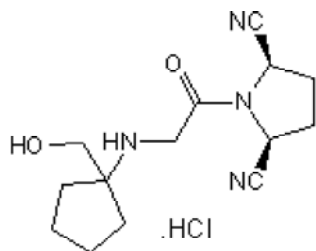
Batch Molecular Formula: $C_{14}H_{20}N_4O_2 \cdot HCl$

Batch Molecular Weight: 312.8

Physical Appearance: White solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 25 mM

water to 50 mM

When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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. Our standard recommendations are:

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:

Wright et al (2006) *cis*-2-5-dicyanopyrrolidine inhibitors of dipeptidyl peptidase IV: synthesis and in vitro, in vivo, and X-ray crystallographic characterization. *J.Med.Chem.* **49** 3068. PMID: 16722626.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956