

Certificate of Analysis

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Product Name: PAOPA

Catalog No.: 5041

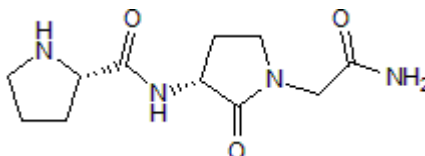
Batch No.: 1

CAS Number: 114200-31-6

IUPAC Name: (3*R*)-2-Oxo-3-[[[(2*S*)-2-Pyrrolidinylcarbonyl]amino]-1-pyrrolidineacetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₈N₄O₃
Batch Molecular Weight: 254.29
Physical Appearance: White solid
Solubility: water to 100 mM
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.16 (Dichloromethane:Methanol:Ammonia soln. [9:1:0.1])
HPLC: Shows >99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +18.1 (Concentration = 1.02, Solvent = Methanol)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	51.96	7.13	22.03
Found	51.59	7.1	21.71

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

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IUPAC Name: (3R)-2-Oxo-3-[[[(2S)-2-Pyrrolidinyl]carbonyl]amino]-1-pyrrolidineacetamide

Description:

Allosteric modulator of dopamine D₂ receptors. Prevents and reverses behavioral and biochemical abnormalities in an amphetamine-sensitized animal model of schizophrenia.

Physical and Chemical Properties:

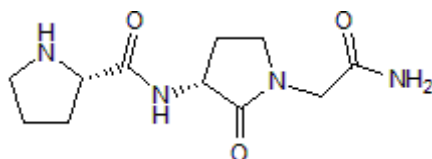
Batch Molecular Formula: C₁₁H₁₈N₄O₃

Batch Molecular Weight: 254.29

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM
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. 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:

Tan et al (2011) Preclinical pharmacokinetic and toxicological evaluation of MIF-1 peptidomimetic, PAOPA: examining the pharmacology of a selective dopamine D₂ receptor allosteric modulator for the treatment of schizophrenia. *Peptides* **42** 89. PMID: 23416534.

Dyck et al (2011) PAOPA, a potent analogue of Pro-Leu-glycinamide and allosteric modulator of the dopamine D₂ receptor, prevents NMDA receptor antagonist (MK-801)-induced deficits in social interaction in the rat: implications for the treatment of negative symptoms in schizophrenia. *Schizophr.Res.* **125** 89. PMID: 21036015.

Beyaert et al (2013) PAOPA, a potent dopamine D₂ receptor allosteric modulator, prevents and reverses behavioral and biochemical abnormalities in an amphetamine-sensitized preclinical animal model of schizophrenia. *Eur.Neuropsychopharmacol.* **23** 253. PMID: 22658400.

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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