

**Product Name:** LEI 401

**Catalog No.:** 7407

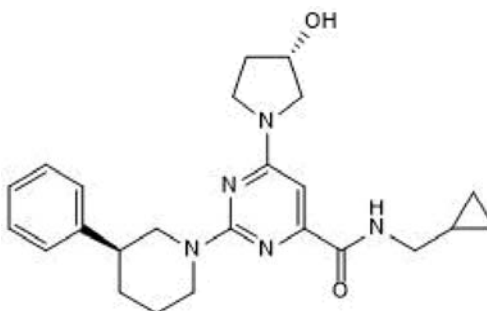
**Batch No.:** 1

CAS Number: 2393840-15-6

IUPAC Name: *N*-(Cyclopropylmethyl)-6-[(3*S*)-3-hydroxy-1-pyrrolidiny]-2-[(3*S*)-3-phenyl-1-piperidiny]-4-pyrimidinecarboxamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>24</sub>H<sub>31</sub>N<sub>5</sub>O<sub>2</sub>.  
**Batch Molecular Weight:** 421.55  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 50 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.1% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	68.38	7.41	16.61
Found	68.17	7.51	16.66

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

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**Description:**

LEI 401 is a high affinity *N*-acylphosphatidylethanolamine phospholipase D (NAPE-PLD) inhibitor ( $K_i = 0.027$  and  $0.18 \mu\text{M}$  for human and mouse NAPE-PLD, respectively;  $IC_{50}$  for human enzyme =  $0.86 \mu\text{M}$ ). LEI 401 exhibits no significant activity at cannabinoid receptors or other metabolic enzymes of the endocannabinoid system. The product reduces levels of *N*-acylethanolamines (NAE) in a neuroblastoma cell line in vitro. It also reduces anandamide levels in mouse brain in vivo and impairs fear extinction. LEI 701 is CNS penetrant and cell-permeable.

**Physical and Chemical Properties:**

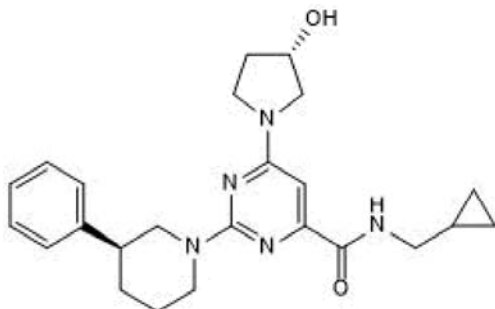
Batch Molecular Formula:  $C_{24}H_{31}N_5O_2$ .

Batch Molecular Weight: 421.55

Physical Appearance: White solid

**Minimum Purity:**  $\geq 98\%$

**Batch Molecular Structure:**



**Storage:** Store at  $-20^\circ\text{C}$

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 50 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  $45-60^\circ\text{C}$  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  $-20^\circ\text{C}$  or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**Licensing Information:**

Sold with kind permission of Professor van der Stelt

**References:**

**Mock et al** (2020) Discovery of a NAPE-PLD inhibitor that modulates emotional behavior in mice. *Nat.Chem.Biol.* **16** 667. PMID: 32393901.

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