

**Product Name:** PPDA

**Catalog No.:** 2530

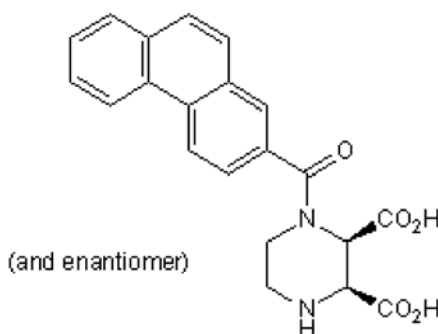
**Batch No.:** 2

CAS Number: 684283-16-7

IUPAC Name: (2*S*\*,3*R*\*)-1-(Phenanthren-2-carbonyl)piperazine-2,3-dicarboxylic acid

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>21</sub>H<sub>18</sub>N<sub>2</sub>O<sub>5</sub>·½H<sub>2</sub>O  
**Batch Molecular Weight:** 387.39  
**Physical Appearance:** White solid  
**Solubility:** 2eq. NaOH to 50 mM  
DMSO to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.71 (Pyridine:Acetic acid:Water:Butanol [3:8:11:22])  
**HPLC:** Shows 98.0% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	65.11	4.94	7.23
Found	64.96	5.17	7.25

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

**Product Name:** PPDA

**Catalog No.:** 2530

**Batch No.:** 2

CAS Number: 684283-16-7

IUPAC Name: (2*S*\*,3*R*\*)-1-(Phenanthren-2-carbonyl)piperazine-2,3-dicarboxylic acid

**Description:**

Subtype-selective NMDA receptor antagonist that preferentially binds to GluN2C/GluN2D (formally NR2C/NR2D) containing receptors ( $K_i$  values are 0.096, 0.125, 0.31 and 0.55  $\mu$ M for GluN2C, GluN2D, GluN2B and GluN2A subunits respectively). Please refer to IUPHAR Guide to Pharmacology for the most recent naming conventions.

**Physical and Chemical Properties:**

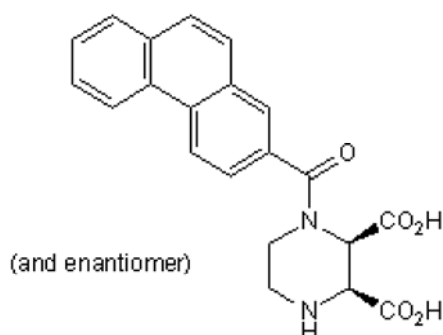
Batch Molecular Formula:  $C_{21}H_{18}N_2O_5 \cdot \frac{1}{2}H_2O$

Batch Molecular Weight: 387.39

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

2eq. NaOH to 50 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.

**Licensing Information:**

Sold under license from UNeMed Corporation.

**References:**

**Kinarsky *et al*** (2005) Identification of subunit- and antagonist-specific amino acid residues in the *N*-methyl-D-aspartate receptor glutamate-binding pocket. *J.Pharmacol.Exp.Ther.* **313** 1066. PMID: 15743930.

**Morley *et al*** (2005) Synthesis and pharmacology of *N*<sub>1</sub>-substituted piperazine-2,3-dicarboxylic acid derivatives acting as NMDA receptor antagonists. *J.Med.Chem.* **48** 2627. PMID: 15801853.

**Feng *et al*** (2004) Structure-activity analysis of a novel NR2C/NR2D-preferring NMDA receptor antagonist: 1-(phenanthrene-2-carbonyl) piperazine-2,3-dicarboxylic acid. *Br.J.Pharmacol.* **141** 508. PMID: 14718249.

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