

**Product Name:** URB 597

**Catalog No.:** 4612

**Batch No.:** 1

CAS Number: 546141-08-6

IUPAC Name: Cyclohexylcarbamic acid 3'-(Aminocarbonyl)-[1,1'-biphenyl]-3-yl ester

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:**  $C_{20}H_{22}N_2O_3 \cdot \frac{1}{4}H_2O$

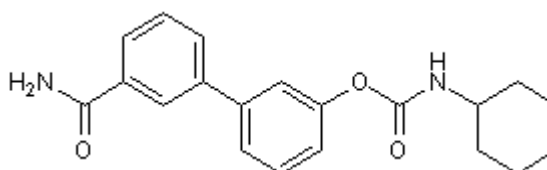
**Batch Molecular Weight:** 342.9

**Physical Appearance:** White solid

**Solubility:** DMSO to 50 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:**  $R_f = 0.25$  (Chloroform:Methanol [95:5])

**HPLC:** Shows >99.9% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

|             | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 70.05  | 6.61     | 8.17     |
| Found       | 70.11  | 6.48     | 8.22     |

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**Description:**

Potent and selective fatty acid amide hydrolase (FAAH) inhibitor (IC<sub>50</sub> values are 3 and 5 nM in human liver and rat brain, respectively). Exhibits no significant inhibitory activity against a variety of receptors, ion channels and enzymes, including human cannabinoid receptors and rat monoacylglycerol lipase. Displays antiallodynic and antihyperalgesic activity in an inflammatory pain model.

**Physical and Chemical Properties:**

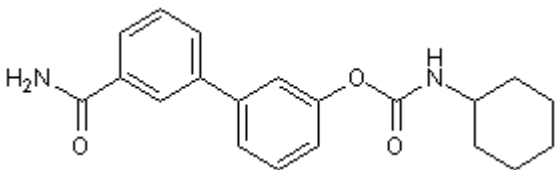
Batch Molecular Formula: C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 342.9

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Hohmann *et al*** (2005) An endocannabinoid mechanism for stress-induced analgesia. *Nature* **435** 1108. PMID: 15973410.

**Piomelli *et al*** (2006) Pharmacological profile of the selective FAAH inhibitor KDS-4103 (URB597). *CNS Drug Rev.* **12** 21. PMID: 16834756.

**Jayamane *et al*** (2006) Actions of the FAAH inhibitor URB597 in neuropathic and inflammatory chronic pain models. *Br.J.Pharmacol.* **147** 281. PMID: 16331291.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO 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°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.

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