

Product Name: KW 3902

Catalog No.: 4167

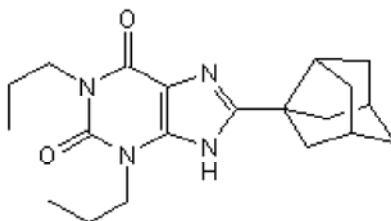
Batch No.: 1

CAS Number: 136199-02-5

IUPAC Name: 8-(Hexahydro-2,5-methanopentalen-3a(1H)-yl)-3,7-dihydro-1,3-dipropyl-1H-purine-2,6-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₈N₄O₂
Batch Molecular Weight: 356.46
Physical Appearance: White solid
Solubility: DMSO to 50 mM
 ethanol to 25 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.33 (Chloroform:Methanol [95:5])
HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.39	7.92	15.72
Found	67.4	7.91	15.49

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

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Description:

KW 3902 is a selective adenosine A₁ receptor antagonist; displays 890-fold selectivity for rat A₁ receptors over A_{2A} receptors (K_i values are 0.19 and 170 nM respectively). Displays no effect on recombinant rat A₃ receptors expressed on CHO cells at concentrations up to 10 μM. Exhibits diuretic and renal protective effects in rats.

Physical and Chemical Properties:

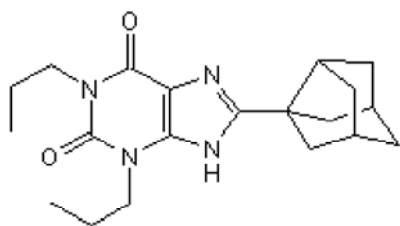
Batch Molecular Formula: C₂₀H₂₈N₄O₂

Batch Molecular Weight: 356.46

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 50 mM

ethanol to 25 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:

Nishiyama et al (1999) Adenosine A₁ receptor antagonist KW-3902 prevents hypoxia-induced renal vasoconstriction. *J.Pharmacol.Exp.Ther.* **291** 988. PMID: 10565815.

Nonaka et al (1996) KW-3902, a selective high affinity antagonist for adenosine A₁ receptors. *Br.J.Pharmacol.* **117** 1645. PMID: 8732272.

Shimada et al (1992) 8-polycycloalkyl-1,3-dipropylxanthines as potent and selective antagonists for A₁-adenosine receptors. *J.Med.Chem.* **35** 924. PMID: 1548682.

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