Product Name: DPCPX

CAS Number: 102146-07-6
IUPAC Name: 8-Cyclopentyl-1,3-dipropylxanthine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{16}\text{H}_{24}\text{N}_{4}\text{O}_{2} \)
Batch Molecular Weight: 304.39
Physical Appearance: White needles
Solubility: DMSO to 5 mM with gentle warming
Store at RT

2. ANALYTICAL DATA

TLC: \( R_f = 0.74 \) (Ethyl acetate:Petroleum ether [1:1])
HPLC: Shows 100% purity
\(^1\text{H} \text{NMR:} \) Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

<table>
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<tbody>
<tr>
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<tr>
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Product Information

Product Name: DPCPX
Catalog No.: 0439
Batch No.: 13

CAS Number: 102146-07-6
IUPAC Name: 8-Cyclopentyl-1,3-dipropylxanthine

Description:
Potent and selective A₁ adenosine receptor antagonist, both in vitro and in vivo. Kᵢ values are 3.9, 130, 50 and 4000 nM for human A₁, A₂A, A₂B and A₃ receptors respectively.

Physical and Chemical Properties:
Batch Molecular Formula: C₁₆H₂₄N₄O₂
Batch Molecular Weight: 304.39
Physical Appearance: White needles

Minimum Purity: >99%

Storage: Store at RT

Solubility & Usage Info:
DMSO to 5 mM with gentle warming
ethanol to 10 mM with gentle warming

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:
Von der Leyen (1989) Effects of 1,3-dipropyl-8-cyclopentylxanthine (DPCPX), a highly selective adenosine receptor antagonist, on force of contraction in guinea-pig atrial and ventricular cardiac preparations. Naunyn Schmiedebergs Arch.Pharmacol. 340 204. PMID: 2554151.