

**Product Name:** MRS 1754

**Catalog No.:** 2752

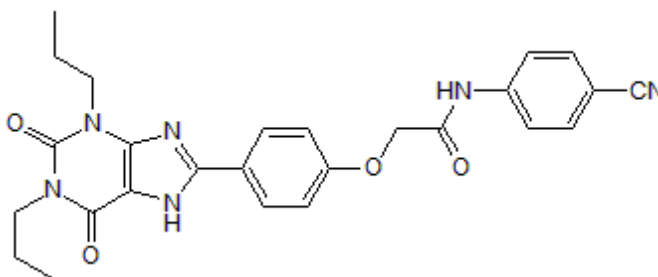
**Batch No.:** 5

CAS Number: 264622-58-4

IUPAC Name: *N*-(4-Cyanophenyl)-2-[4-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1*H*-purin-8-yl)phenoxy]-acetamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>26</sub>H<sub>26</sub>N<sub>6</sub>O<sub>4</sub>·½H<sub>2</sub>O  
**Batch Molecular Weight:** 495.53  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 5 mM with gentle warming  
 DMSO to 10 mM with sonication  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.45 (Dichloromethane:Methanol [97.5:2.5])  
**HPLC:** Shows >99% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	63.02	5.49	16.96
Found	62.96	5.4	16.92

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**Description:**

Selective adenosine A<sub>2B</sub> receptor antagonist (K<sub>i</sub> values are 1.97, 16.8, 403, 503, 570 and 612 nM for hA<sub>2B</sub>, rA<sub>1</sub>, hA<sub>1</sub>, hA<sub>2A</sub>, hA<sub>3</sub> and rA<sub>2A</sub> receptors respectively).

**Physical and Chemical Properties:**

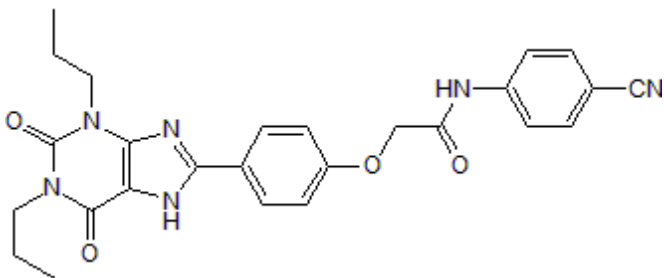
Batch Molecular Formula: C<sub>26</sub>H<sub>26</sub>N<sub>6</sub>O<sub>4</sub> · ½H<sub>2</sub>O

Batch Molecular Weight: 495.53

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Kim et al (2000)** Anilide derivatives of an 8-phenylxanthine carboxylic congener are highly potent and selective antagonists at human A<sub>2B</sub> adenosine receptors. *J.Med.Chem.* **43** 1165. PMID: 10737749.

**Ji et al (2001)** [<sup>3</sup>H]MRS 1754, a selective antagonist radioligand for A<sub>2B</sub> adenosine receptors. *Biochem.Pharmacol.* **61** 657. PMID: 11266650.

**Nemeth et al (2007)** Adenosine receptor activation ameliorates type I diabetes. *FASEB J.* **21** 2380.

**Storage:** Desiccate at RT

**Solubility & Usage Info:**

DMSO to 5 mM with gentle warming

DMSO to 10 mM with sonication

**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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