Print Date: Feb 6th 2014

Certificate of Analysis

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Product Name: Istradefylline **Catalog No.: 5147** **Batch No.: 1**

CAS Number: 155270-99-8

IUPAC Name: 8-[(1*E*)-2-(2-(3,4-Dimethoxyphenyl)ethenyl]-1,3-diethyl-3,7-dihydro-7-methyl-1*H*-purine-2,6-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{24}N_4O_4$

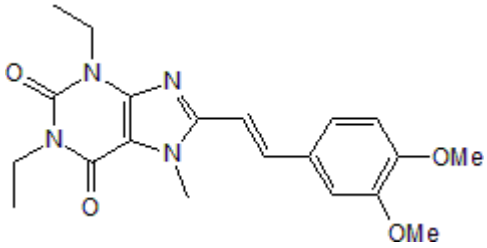
Batch Molecular Weight: 384.43

Physical Appearance: White solid

Solubility: DMSO to 20 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.43	6.29	14.57
Found	62.17	6.22	14.62

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Description:

Potent and selective adenosine A_{2A} receptor antagonist (K_i values are 2.2 and 150 nM for A_{2A} and A_1 receptors respectively). Anticataleptic and antiparkinson agent; reverses drug-induced motor dysfunction in animal models.

Physical and Chemical Properties:

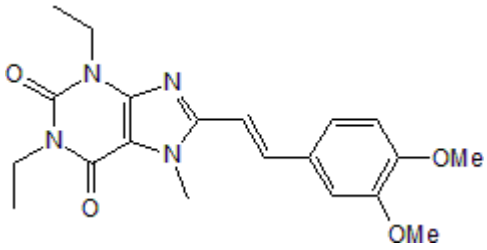
Batch Molecular Formula: $C_{20}H_{24}N_4O_4$

Batch Molecular Weight: 384.43

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 20 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:

Shimada *et al* (1997) Adenosine A_{2A} antagonists with potent anti-cataleptic activity. Bioorg.Med.Chem.Lett. ***7*** 2349.

Kanda *et al* (1998) Adenosine A_{2A} receptors modify motor function in MPTP-treated common marmosets. Neuroreport ***9*** 2857. PMID: 9760134.

Shiozaki *et al* (1999) Actions of adenosine A_{2A} receptor antagonist KW-6002 on drug-induced catalepsy and hypokinesia caused by reserpine or MPTP. Psychopharmacology ***147*** 90. PMID: 10591873.