Certificate of Analysis

Product Name: **PPQ 102** **Catalog No.: 4303** **Batch No.: 1**

CAS Number: 931706-15-9

IUPAC Name: 6,7-Dihydro-7,9-dimethyl-6-(5-methyl-2-furanyl)-11-phenylpyrimido[4',5':3,4]pyrrolo[1,2-*a*]quinoxaline-8,10(5*H*,9)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{26}H_{22}N_4O_3.¼H_2O$

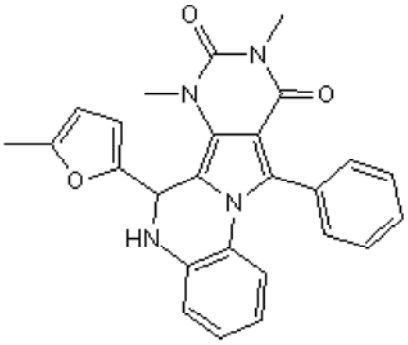
Batch Molecular Weight: 442.98

Physical Appearance: Yellow solid

Solubility: DMSO to 20 mM with gentle warming

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.5	5.12	12.65
Found	70.81	5.11	12.73

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Description:

Potent, voltage-independent CFTR chloride channel inhibitor (IC_{50} = 90 nM). Reduces the size and number of renal cysts in an embryonic kidney culture model of polycystic kidney disease. Also increases VEGF-A production from airway epithelial cells in vitro.

Physical and Chemical Properties:

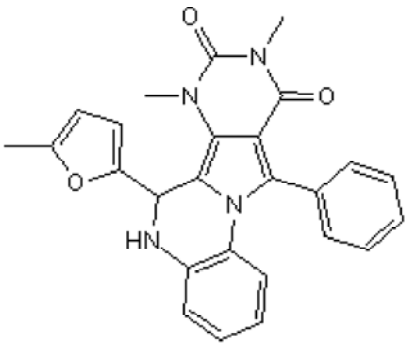
Batch Molecular Formula: $C_{26}H_{22}N_4O_3.¼H_2O$

Batch Molecular Weight: 442.98

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°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 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:

Martin *et al* (2013) CFTR dysfunction induces vascular endothelial growth factor synthesis in airway epithelium. Eur.Resp.J. ***42*** 1553. PMID: 23520314.

Tradtrantip *et al* (2009) Nanomolar potency pyrimido-pyrrolo-quinoxalinedione CFTR inhibitor reduces cyst size in a polycystic kidney disease model. J.Med.Chem. ***52*** 6447. PMID: 19785436.