Certificate of Analysis

Product Name: **GNF 7** **Catalog No.: 5607** **Batch No.: 2**

CAS Number: 839706-07-9

IUPAC Name: *N*-[3-[1,4-Dihydro-1-methyl-7-[(6-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-*d*]pyrimidin-3(2*H*)-yl]-4-methylphenyl]-3-(trifluoromethyl)benzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{28}H_{24}F_3N_7O_2.1¼H_2O$

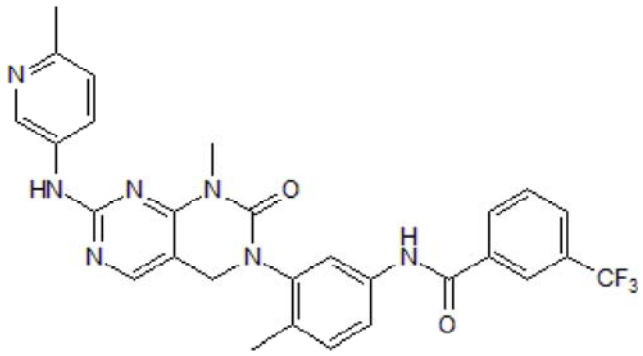
Batch Molecular Weight: 570.05

Physical Appearance: White solid

Solubility: DMSO to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59	4.69	17.2
Found	58.66	4.46	17.1

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Description:

GNF 7 is a potent Bcr-Abl inhibitor (IC_{50} values are 61 and 133 nM for T315I and wild-type Bcr-Abl, respectively), inhibiting a range of clinically relevant Bcr-Abl mutants such as T315I, G250E, E255V, F317L and M351T. GNF 7 is also a Ras signaling inhibitor as well as inhibiting Ack1 and germinal center kinase (GCK). GNF 7 induces cell cycle arrest and apoptosis in leukemia cells harboring NRAS mutations, and shows growth inhibitory activity in human colon cancer cells. It prolongs survival in a leukemia cell xenotransplantation model in mice and is orally bioavailable.

Physical and Chemical Properties:

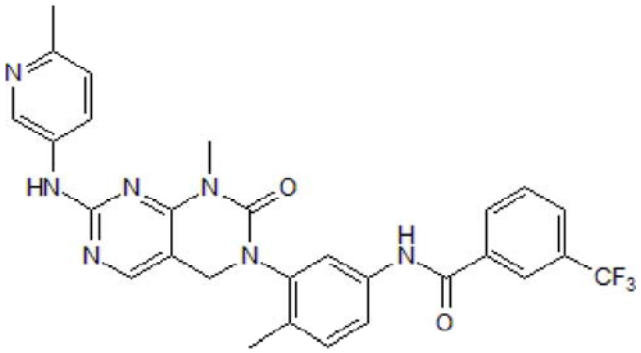
Batch Molecular Formula: $C_{28}H_{24}F_3N_7O_2.1¼H_2O$

Batch Molecular Weight: 570.05

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 50 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:

Nonami *et al* (2015) Identification of novel therapeutic targets in acute leukemias with NRAS mutations using a pharmacologic approach. Blood ***125*** 3133. PMID: 25833960.

Choi *et al* (2010) A type-II kinase inhibitor capable of inhibiting the T315I "gatekeeper" mutant of Bcr-Abl. J.Med.Chem ***53*** 5439. PMID: 20604564.

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