Certificate of Analysis

Product Name: **FRAX 597** **Catalog No.: 6029** **Batch No.: 1**

CAS Number: 1286739-19-2

IUPAC Name: 6-[2-Chloro-4-(5-thiazolyl)phenyl]-8-ethyl-2-[[4-(4-methyl-1-piperazinyl)phenyl]amino]pyrido[2,3-*d*]pyrimidin-7-(8*H*)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{29}H_{28}ClN_7OS.¼H_2O$

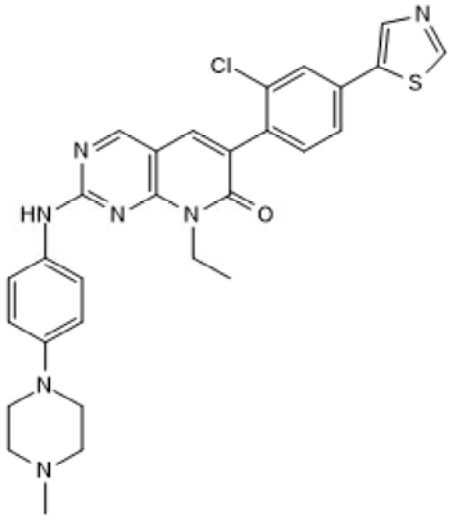
Batch Molecular Weight: 562.6

Physical Appearance: Yellow solid

Solubility: DMSO to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.0% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.91	5.11	17.43
Found	61.84	4.84	17.41

Product Name: **FRAX 597** **Catalog No.: 6029** **Batch No.: 1**

CAS Number: 1286739-19-2

IUPAC Name: 6-[2-Chloro-4-(5-thiazolyl)phenyl]-8-ethyl-2-[[4-(4-methyl-1-piperazinyl)phenyl]amino]pyrido[2,3-*d*]pyrimidin-7-(8*H*)-one

Description:

FRAX 597 is a potent group I PAK inhibitor (IC_{50} values are 8, 13 and 19 nM for PAK1, 2 and 3, respectively). FRAX 597 exhibits significant inhibition of YES1, RET, CSF1R and TEK at 100 nM, but is inactive against group II PAK isoforms (IC_{50} >10 µM for PAK4). FRAX 597 inhibits proliferation of pancreatic cancer and schwannoma cells in vitro and exhibits antitumor effects in mice.

Physical and Chemical Properties:

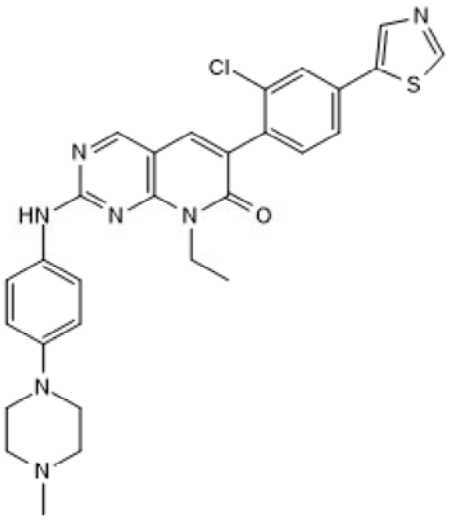
Batch Molecular Formula: $C_{29}H_{28}ClN_7OS.¼H_2O$

Batch Molecular Weight: 562.6

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

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:

Yeo *et al* (2016) FRAX597, a PAK1 inhibitor, synergistically reduces pancreatic cancer growth when combined with gemcit. BMC Cancer ***16*** 24. PMID: 26774265.

Licciulli *et al* (2013) FRAX597, a small molecule inhibitor of the p21-activated kinases, inhibits tumorigenesis of neurofibromatosis type 2 (NF2)-associated Schwannomas. J.Biol.Chem. ***288*** 29105. PMID: 23960073 .