

## Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** PD 180970

**Catalog No.:** 4965

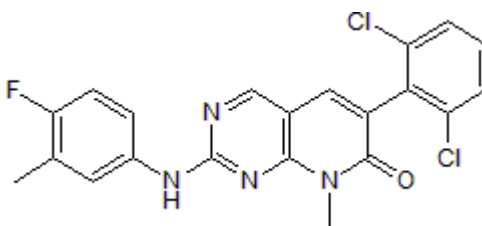
**Batch No.:** 1

CAS Number: 287204-45-9

IUPAC Name: 6-(2,6-Dichlorophenyl)-2-[(4-fluoro-3-methylphenyl)amino]-8-methyl-pyrido[2,3-*d*]pyrimidin-7(8*H*)-one

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>21</sub>H<sub>15</sub>Cl<sub>2</sub>FN<sub>4</sub>O  
**Batch Molecular Weight:** 429.27  
**Physical Appearance:** Yellow solid  
**Solubility:** DMSO to 50 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 98.4% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

|             | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 58.76  | 3.52     | 13.04    |
| Found       | 58.67  | 3.61     | 12.85    |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**Product Name:** PD 180970

**Catalog No.:** 4965

**Batch No.:** 1

CAS Number: 287204-45-9

IUPAC Name: 6-(2,6-Dichlorophenyl)-2-[(4-fluoro-3-methylphenyl)amino]-8-methyl-pyrido[2,3-*d*]pyrimidin-7(8*H*)-one

**Description:**

ATP-competitive inhibitor of p210<sup>bcr/abl</sup> tyrosine kinase; selectively induces apoptosis in chronic myeloid leukemia (CML) K562 cells. Inhibits in vivo tyrosine phosphorylation of Gab2, CrkL and p210<sup>bcr/abl</sup> (IC<sub>50</sub> values are 80, 80 and 170 nM respectively). Potently inhibits p210<sup>bcr/abl</sup> autophosphorylation in vitro (IC<sub>50</sub> = 5 nM). Also potently inhibits c-Src and KIT (IC<sub>50</sub> values are 0.8 and 50 nM, respectively).

**Physical and Chemical Properties:**

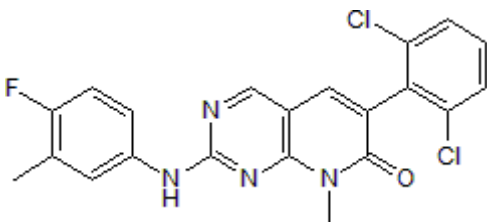
Batch Molecular Formula: C<sub>21</sub>H<sub>15</sub>Cl<sub>2</sub>FN<sub>4</sub>O

Batch Molecular Weight: 429.27

Physical Appearance: Yellow solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Dorsey *et al*** (2000) The pyrido[2,3-*d*]pyrimidine derivative PD180970 inhibits p210<sup>bcr-abl</sup> tyrosine kinase and induces apoptosis of K562 leukemic cells. *Cancer Res.* **60** 3127. PMID: 10866298.

**La Rosée *et al*** (2002) Activity of the Bcr-Abl kinase inhibitor PD180970 against clinically relevant Bcr-Abl isoforms that cause resistance to imatinib mesylate (Gleevec, STI571). *Cancer Res.* **62** 7149. PMID: 12499247.

**Corbin *et al*** (2004) Sensitivity of oncogenic KIT mutants to the kinase inhibitors MLN518 and PD180970. *Blood* **104** 3754. PMID: 15304388.

**Storage:** Store at +4°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.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel: +1 612 379 2956