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Print Date: Jan 14th 2016

Certificate of Analysis

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Product Name: **PD 166285 dihydrochloride** **Catalog No.: 3785** **Batch No.: 1**

CAS Number: 212391-63-4

IUPAC Name: 6-(2,6-Dichlorophenyl)-2-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-8-methylpyrido[2,3-*d*]pyrimidin-7(8*H*)-one dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{26}H_{27}Cl_2N_5O_2.2HCl.1\frac{1}{2}H_2O$

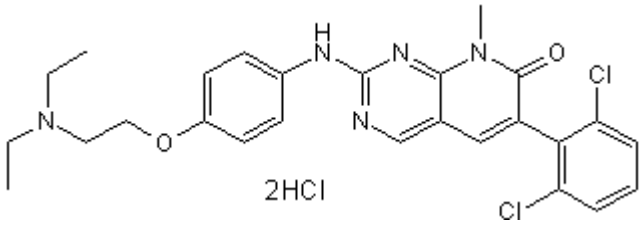
Batch Molecular Weight: 612.37

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Desiccate at RT

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	51.01	5.27	11.44
Found	51.28	5.34	11.33

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

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Description:

Potent inhibitor of the tyrosine kinases c-Src, fibroblast growth factor receptor 1 (FGFR1), and platelet-derived growth factor receptor β (PDGFRβ) (IC_{50} values are 8.4, 39.3 and 98.3 nM respectively). Also inhibits the checkpoint kinases Wee1 and Myt1; abolishes Cdc2 phosphorylation in numerous tumor cell lines and abrogates the G_2 checkpoint.

Physical and Chemical Properties:

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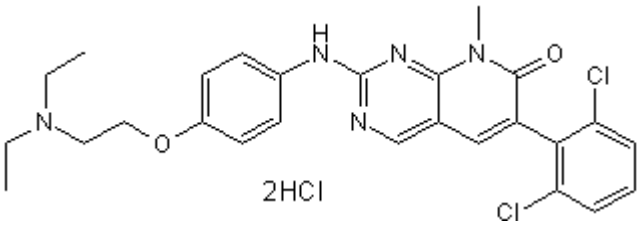
Batch Molecular Weight: 612.37

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

DMSO to 100 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:

Panek *et al* (1997) In vitro pharmacological characterization of PD 166285, a new nanomolar potent and broadly active protein tyrosine kinase inhibitor. J.Pharmacol.Exp.Ther. ***283*** 1433. PMID: 9400019.

Wang *et al* (2001) Radiosensitization of p53 mutant cells by PD0166285, a novel G_2 checkpoint abrogator. Cancer Res. ***61*** 8211. PMID: 11719452.

Hashimoto *et al* (2006) Cell cycle regulation by the Wee1 inhibitor PD0166285, Pyrido [2,3-*d*] pyimidine, in the B16 mouse melanoma cell line. BMC Cancer ***6*** 292. PMID: 17177986.