bio-techne
TOCRIS

Print Date: Feb 26th 2024

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: $C_{26}H_{27}Cl_2N_5O_2.2HCl.1½H_2O$

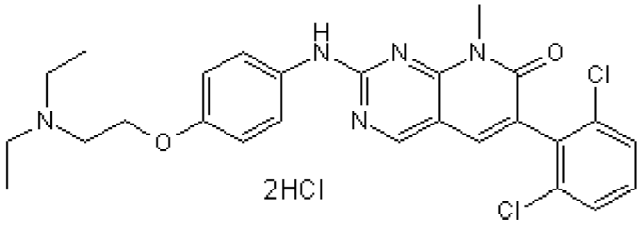
Batch Molecular Weight: 612.37

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

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Description:

PD 166285 dihydrochloride is a 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.

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Minimum Purity: ≥99%

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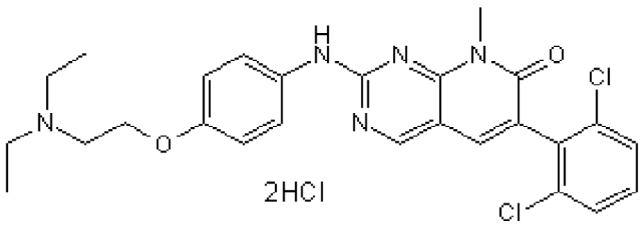

Storage: Desiccate at RT

Solubility & Usage Info:

DMSO to 100 mM

When purchased as a 1mg unit, this product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

Licensing Information:

Sold for research purposes under agreement from Pfizer Inc.

References:

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.

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

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.