Print Date: Feb 17th 2014

Certificate of Analysis

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Product Name: ZM 323881 hydrochloride **Catalog No.: 2475** **Batch No.: 2**

CAS Number: 193000-39-4

IUPAC Name: 5-((7-Benzyloxyquinazolin-4-yl)amino)-4-fluoro-2-methylphenol hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{18}FN_3O_2.HCl.½H_2O$

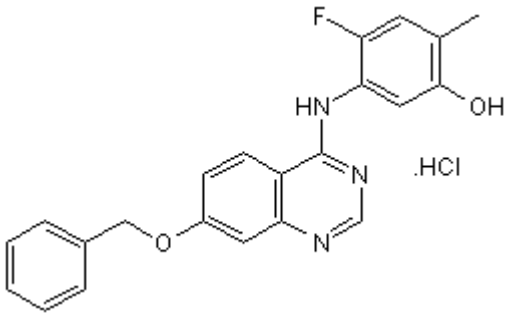
Batch Molecular Weight: 420.87

Physical Appearance: Pale yellow solid

Solubility: DMSO to 50 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.44 (Chloroform:Methanol:Ammonia soln. [9:1:5])

HPLC: Shows >99.83% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.78	4.79	9.98
Found	62.99	4.58	9.84

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Description:

Potent and selective inhibitor of human vascular endothelial growth factor receptor 2 (VEGFR-2/KDR) activity. Selectively inhibits VEGFR-2 (IC_{50} = 2 nM) over VEGFR-1 and a range of other receptor tyrosine kinases such as PDGFRβ, FGFR1, EGFR and erbB2 (IC_{50} > 50 µM). Inhibits VEGF-A-induced endothelial cell proliferation in vitro (IC_{50} = 8 nM).

Physical and Chemical Properties:

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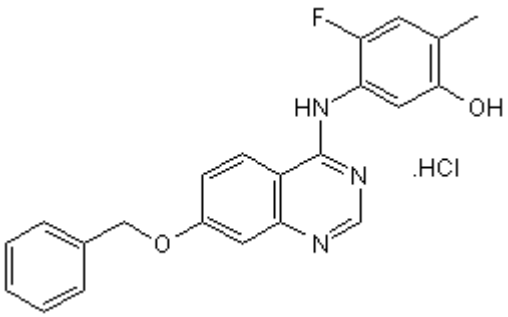
Physical Appearance: Pale yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate 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.

References:

Whittles *et al* (2002) ZM323881, a novel inhibitor of vascular endothelial growth factor-receptor-2 tyrosine kinase activity. Microcirculation ***9*** 513. PMID: 12483548.

Endo *et al* (2003) Selective inhibition of vascular endothelial growth factor receptor-2 (VEGFR-2) identifies a central role for VEGFR-2 in human aortic endothelial cell responses to VEGF. J.Recept.Signal Transduct.Res. ***23*** 239. PMID: 14626450.