Print Date: Oct 25th 2021

Certificate of Analysis

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Product Name: **Cediranib** **Catalog No.: 7454** **Batch No.: 1**

CAS Number: 288383-20-0

IUPAC Name: 4-[(4-Fluoro-2-methyl-1*H*-indol-5-yl)oxy]-6-methoxy-7-[3-(1-pyrrolidinyl)propoxy]quinazoline

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{25}H_{27}FN_4O_3.¾H_2O$

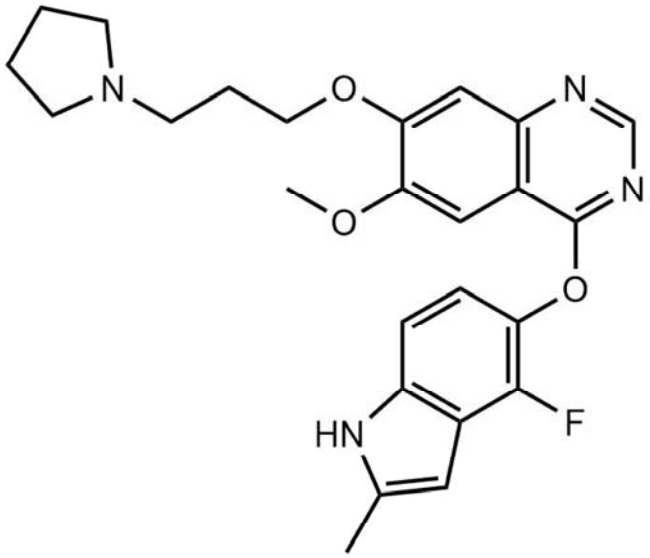
Batch Molecular Weight: 464.02

Physical Appearance: Brown solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.6% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.71	6.19	12.07
Found	64.37	6.03	11.99

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

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Product Information

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Description:

Cediranib is a highly potent and ATP-competitive inhibitor of VEGFR2 (IC_{50} = <1 nM). Cediranib also potently inhibits PDGFR1, VEGFR3, VEGFR1, c-Kit, PDGFR2 and FGFR1 (IC_{50} values are 2, 3, 5, 5, 26 and 36 nM, respectively), and inhibits CSF-1R, Src, and Abl (IC_{50} values are 110, 130 and 260 nM, respectively). Cediranib induces hypoxia, prevents VEGF-induced angiogenesis and suppresses homology-directed DNA repair (HDR) factors BRCA1/2 and RAD51. Cediranib decreases cell motility, proliferation and cell viability. Cediranib is active in vivo.

Physical and Chemical Properties:

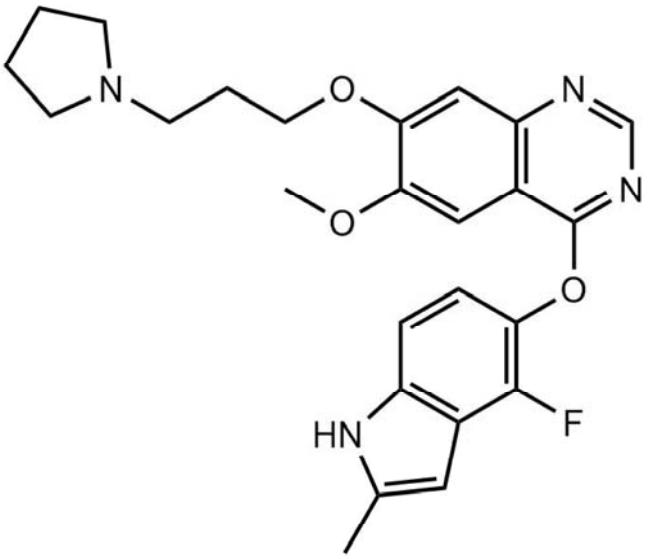
Batch Molecular Formula: $C_{25}H_{27}FN_4O_3.¾H_2O$

Batch Molecular Weight: 464.02

Physical Appearance: Brown solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol 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:

Momeny *et al* (2020) Cediranib, an inhibitor of vascular endothelial growth factor receptor kinases, inhibits proliferation and invasion of prostate adenocarcinoma cells Eur.J.Pharmacol. ***882***. PMID: 32593665.

Kaplan *et al* (2019) Cediranib suppresses homology-directed DNA repair through down-regulation of BRCA1/2 and RAD51. Sci.Transl.Med. ***11***. PMID: 31092693.

Wedge *et al* (2005) AZD2171: a highly potent, orally bioavailable, vascular endothelial growth factor receptor-2 tyrosine kinase inhibitor for the treatment of cancer. Cancer Res. ***65*** 4389. PMID: 15899831.