Print Date: Jan 10th 2022

Certificate of Analysis

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Product Name: **Vandetanib** **Catalog No.: 7497** **Batch No.: 1**

CAS Number: 443913-73-3

IUPAC Name: *N*-(4-Bromo-2-fluorophenyl)-6-methoxy-7-[(1-methyl-4-piperidinyl)methoxy]-4-quinazolinamine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{24}BrFN_4O_2$.

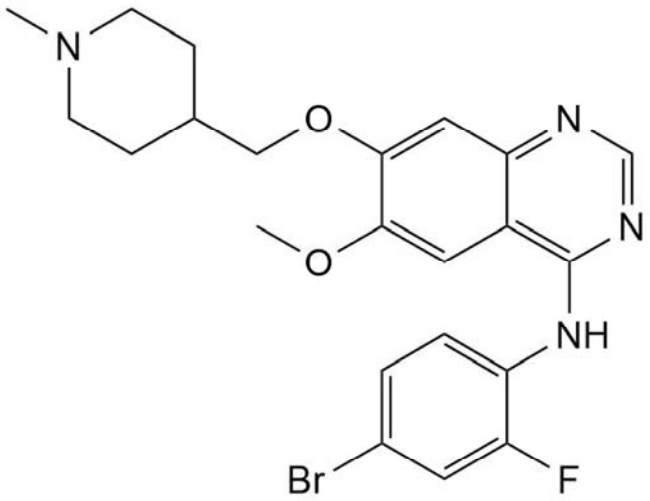
Batch Molecular Weight: 475.36

Physical Appearance: White solid

Solubility: DMSO to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	55.59	5.09	11.79
Found	55.75	5.11	11.8

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Product Information

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Description:

Vandetanib is a potent VEGFR-2 inhibitor (IC_{50} = 0.04 µM), and inhibitor of EGFR (IC_{50} = 0.5 µM). Vandetanib potently inhibits (IC_{50} = 100 nM) RET oncoprotein activity in human thyroid cancer. Vandetanib displays anti-angiogenic properties in human nasopharyngeal carcinoma in mice model. Vandetanib is orally available and effective in vivo.

Physical and Chemical Properties:

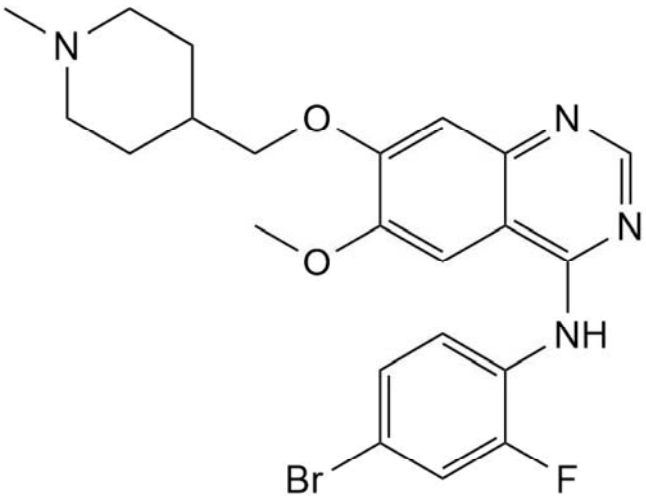
Batch Molecular Formula: $C_{22}H_{24}BrFN_4O_2$.

Batch Molecular Weight: 475.36

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°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:

Ancker *et al* (2019) Multikinase inhibitor treatment in thyroid cancer. Int.J.Mol.Sci. ***21*** 10. PMID: 31861373.

Cui *et al* (2015) Resonance imaging for monitoring the early response to ZD6474 from nasopharyngeal carcinoma in nude mouse. Sci.Rep. ***5*** 16389. PMID: 26574153.

Carlomagno *et al* (2002) ZD6474, an orally available inhibitor of KDR tyrosine kinase activity, efficiently blocks oncogenic RET kinases. Cancer res. ***62*** 7284. PMID: 12499271.