

Certificate of Analysis

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Product Name: Lapatinib

Catalog No.: 6811

Batch No.: 1

CAS Number: 231277-92-2

IUPAC Name: *N*-[3-Chloro-4-[(3-fluorophenyl)methoxy]phenyl]-6-[5-[[[2-(methylsulfonyl)ethyl]amino]methyl]-2-furanyl]-4-quinazolinamine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₉H₂₆ClFN₄O₄S

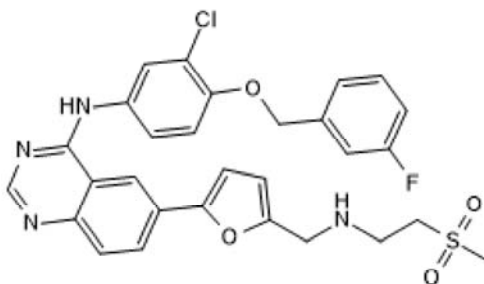
Batch Molecular Weight: 581.06

Physical Appearance: Pale yellow solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

	Carbon	Hydrogen	Nitrogen
Theoretical	59.94	4.51	9.64
Found	59.86	4.51	9.66

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

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Description:

Potent and selective dual ErbB2 (HER-2) and EGFR inhibitor (IC₅₀ values are 9.8 and 10.2 nM, respectively). Selective for EGFR and ErbB-2 versus other proliferative kinases. Inhibits proliferation in multiple cancer cell lines (average IC₅₀ values

Physical and Chemical Properties:

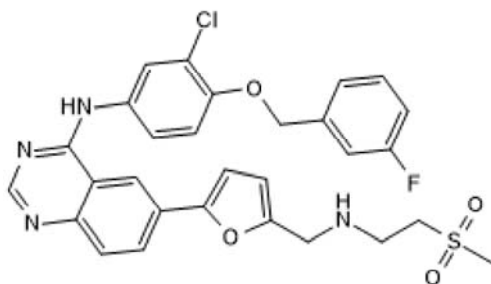
Batch Molecular Formula: C₂₉H₂₆ClFN₄O₄S

Batch Molecular Weight: 581.06

Physical Appearance: Pale yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

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:

Rusnak et al (2001) The effects of the novel, reversible epidermal growth factor receptor/ErbB-2 tyrosine kinase inhibitor, GW2016, on the growth of human normal and tumor-derived cell lines *in vitro* and *in vivo*. Mol.Cancer Ther. **1** 85. PMID: 12467226.

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