

Certificate of Analysis

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Product Name: PQ 401

Catalog No.: 2768

Batch No.: 1

CAS Number: 196868-63-0

IUPAC Name: *N*-(5-Chloro-2-methoxyphenyl)-*N'*-(2-methyl-4-quinolinyl)urea

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₆ClN₃O₂·¼H₂O

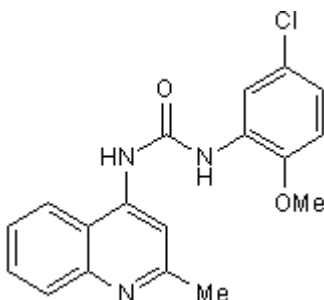
Batch Molecular Weight: 346.29

Physical Appearance: Cream solid

Solubility: DMSO to 50 mM
ethanol to 25 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.7 (Ethyl acetate:Ethanol [10:1])

HPLC: Shows >99.2% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 62.43 4.8 12.13

Found 62.63 4.74 12.46

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

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Description:

Insulin-like growth factor receptor (IGF1R) inhibitor. Suppresses IGF-stimulated IGF-IR autophosphorylation with an IC₅₀ value of 12 µM. Inhibits growth of MCF-7 breast cancer cells in vitro and in vivo.

Physical and Chemical Properties:

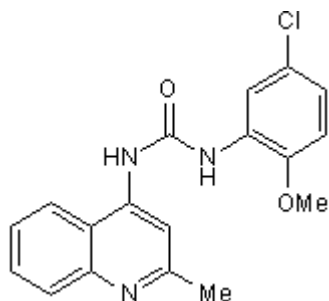
Batch Molecular Formula: C₁₈H₁₆ClN₃O₂·½H₂O

Batch Molecular Weight: 346.29

Physical Appearance: Cream solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Anderson et al (2006) Parallel synthesis of diarylureas and their evaluation as inhibitors of insulin-like growth factor receptor. *J.Comb.Chem.* **8** 784. PMID: 16961415.

Gable et al (2006) Diarylureas are small-molecule inhibitors of insulin-like growth factor I receptor signaling and breast cancer cell growth. *Mol.Cancer* **5** 1079.

Sivakumar et al (2009) Autocrine loop for IGF-I receptor signaling in SLUG-mediated epithelial-mesenchymal transition. **34** 329. PMID: 19148466.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 50 mM

ethanol to 25 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.

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