

Certificate of Analysis

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Product Name: AG 1478 hydrochloride

Catalog No.: 1276

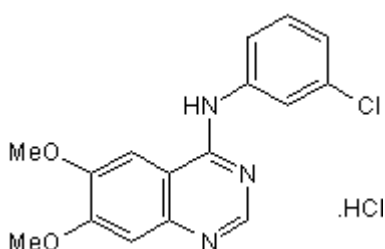
Batch No.: 2

CAS Number: 170449-18-0

IUPAC Name: *N*-(3-Chlorophenyl)-6,7-dimethoxy-4-quinazolinanine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₄ClN₃O₂.HCl
Batch Molecular Weight: 352.22
Physical Appearance: Cream solid
Solubility: DMSO to 10 mM with gentle warming
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.38 (Ethyl acetate:Triethylamine [10:0.003])
HPLC: Shows 98.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.56	4.29	11.93
Found	54.53	4.29	11.9

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

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Description:

Potent and selective inhibitor of epidermal growth factor receptor kinase (IC₅₀ values 3 nM for EGFR and > 100 μM for ErbB2 and PDGFR). Inhibits proliferation of NCI-H2170 NSCLC cells in vitro (IC₅₀ = 1 μM).

Physical and Chemical Properties:

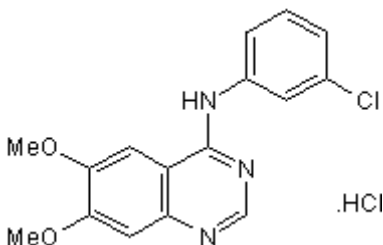
Batch Molecular Formula: C₁₆H₁₄ClN₃O₂·HCl

Batch Molecular Weight: 352.22

Physical Appearance: Cream solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Levitzi and Gazit (1995) Tyrosine kinase inhibition: an approach to drug development. *Science* **267** 1782. PMID: 7892601.

Han et al (1996) Tyrphostin AG 1478 preferentially inhibits human glioma cells expressing truncated rather than wild-type epidermal growth factor receptors. *Cancer Res.* **56** 3859. PMID: 8752145.

Eguchi et al (1998) Calcium-dependent epidermal growth factor receptor transactivation mediates the angiotensin II-induced mitogen-activated protein kinase activation in vascular smooth muscle cells. *J.Biol.Chem.* **273** 8890. PMID: 9535870.

Puri and Salgia (2008) Synergism of EGFR and c-Met pathways, cross-talk and inhibition, in non-small cell lung cancer. *J.Carcinog.* **7** 9. PMID: 19240370.

Storage: Desiccate at -20°C

Solubility & Usage Info:

DMSO to 10 mM with gentle warming

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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