

Certificate of Analysis

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Product Name: AG 490

Catalog No.: 0414

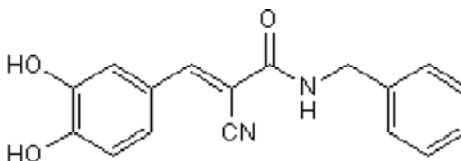
Batch No.: 4

CAS Number: 133550-30-8

IUPAC Name: (E)-2-Cyano-3-(3,4-dihydroxyphenyl)-N-(phenylmethyl)-2-propenamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₄N₂O₃
Batch Molecular Weight: 294.31
Physical Appearance: Yellow solid
Solubility: ethanol to 20 mM
DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.75 (Ethyl acetate:Petroleum ether [9:1])
HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

	Carbon Hydrogen Nitrogen		
	Carbon	Hydrogen	Nitrogen
Theoretical	69.38	4.79	9.52
Found	69.26	4.77	9.44

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

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IUPAC Name: (E)-2-Cyano-3-(3,4-dihydroxyphenyl)-N-(phenylmethyl)-2-propenamamide

Description:

Selective inhibitor of EGF receptor tyrosine kinase (IC₅₀ values are 2 and 13.5 μM for EGFR and ErbB2 respectively). Inhibitor of JAK2, JAK3/STAT, JAK3/AP-1 and JAK3/MAPK pathways and potently inhibits cytokine-independent cell growth in vitro and tumor cell invasion in vivo.

Physical and Chemical Properties:

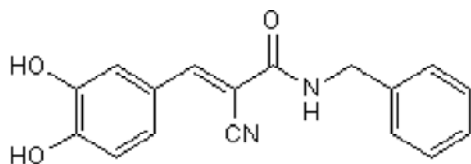
Batch Molecular Formula: C₁₇H₁₄N₂O₃

Batch Molecular Weight: 294.31

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

ethanol to 20 mM

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:

Abe et al (2009) The polycythemia vera-associated Jak2 V617F mutant induces tumorigenesis in nude mice. *Int.Immunopharmacol.* **9** 870. PMID: 19327411.

Wang et al (1999) JAK3, STAT, and MAPK signaling pathways as novel molecular targets for the tyrophostin AG-490 regulation of IL-2-mediated T cell response. *J.Immunol.* **162** 3897. PMID: 10201908.

Meydan et al (1996) Inhibition of acute lymphoblastic leukaemia by a JAK-2 inhibitor. *Nature* **379** 645. PMID: 8628398.

Gazit et al (1991) Tyrophostins. 2. Heterocyclic and α-substituted benzylidenemalononitrile tyrophostins as potent inhibitors of EGF receptor and ErbB2/neu tyrosine kinases. *J.Med.Chem.* **34** 1896. PMID: 1676428.

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