

## Certificate of Analysis

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**Product Name:** AG 213

**Catalog No.:** 0503

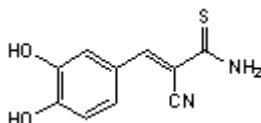
**Batch No.:** 1

CAS Number: 122520-86-9

IUPAC Name: (*E*)-2-Cyano-3-(3,4-dihydroxyphenyl)-2-propenthioamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>10</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub> S
<b>Batch Molecular Weight:</b>	220.25
<b>Physical Appearance:</b>	Yellow/orange solid
<b>Solubility:</b>	ethanol to 25 mM DMSO to 100 mM
<b>Storage:</b>	Desiccate at +4°C
<b>Batch Molecular Structure:</b>	



### 2. ANALYTICAL DATA

<b>TLC:</b>	R <sub>f</sub> = 0.7 (Dichloromethane:Methanol [10:1])
<b><sup>1</sup>H NMR:</b>	Consistent with structure

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)-2-propenthioamide

**Description:**

Epidermal growth factor receptor (EGFR) and platelet-derived growth factor receptor (PDGFR) kinase inhibitor (IC<sub>50</sub> values are 2.4 and 3 μM respectively). Stimulates microtubule polymerization and promotes neurite outgrowth > 17-fold over basal conditions in vitro. Also weakly inhibits protein kinase C (IC<sub>50</sub> = 60 μM).

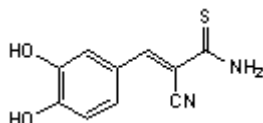
**Physical and Chemical Properties:**

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Batch Molecular Weight: 220.25

Physical Appearance: Yellow/orange solid

**Batch Molecular Structure:**



**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

ethanol to 25 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:**

**Yaish *et al*** (1988) Blocking of EGF-dependent cell proliferation by EGF receptor kinase inhibitors. *Science* **242** 933. PMID: 3263702.

**Gazit *et al*** (1989) Tyrphostins I: synthesis and biological activity of protein tyrosine kinase inhibitors. *J.Med.Chem.* **32** 2344. PMID: 2552117.

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

**Plouffe *et al*** (2006) Role of tyrosine kinase receptors in angiotensin II AT<sub>2</sub> receptor signaling: Involvement in neurite outgrowth and in p42/p44<sup>mapk</sup> activation in NG108-15 cells. *Endocrinology* **147** 4646. PMID: 16809450.

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