

## Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** AG 18

**Catalog No.:** 0493

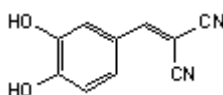
**Batch No.:** 1

**CAS Number:** 118409-57-7

**IUPAC Name:** [(3,4-Dihydroxyphenyl)methylene]-propenedinitrile

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>10</sub>H<sub>6</sub>N<sub>2</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 186.17  
**Physical Appearance:** Yellow solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Desiccate at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.56 (Dichloromethane:Methanol:Ammonia soln. [10:1:0.1])  
**Melting Point:** At 210°C(dec)  
**<sup>1</sup>H NMR:** Consistent with structure

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

**bio-techne.com**  
[info@bio-techne.com](mailto:info@bio-techne.com)  
[techsupport@bio-techne.com](mailto:techsupport@bio-techne.com)

**North America**  
 Tel: (800) 343 7475

**China**  
[info.cn@bio-techne.com](mailto:info.cn@bio-techne.com)  
 Tel: +86 (21) 52380373

**Europe Middle East Africa**  
 Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
 Tel: +1 612 379 2956

## Product Information

[www.tocris.com](http://www.tocris.com)

**Product Name:** AG 18

**Catalog No.:** 0493

**Batch No.:** 1

**CAS Number:** 118409-57-7

**IUPAC Name:** [(3,4-Dihydroxyphenyl)methylene]-propenedinitrile

### Description:

Inhibitor of epidermal growth factor receptor (EGFR) and platelet-derived growth factor receptor (PDGFR) kinase (IC<sub>50</sub> values are 35 and 25 µM respectively). Inhibits EGF-stimulated cell proliferation. Also acts as a mitochondrial uncoupler that alters phosphorylation-dependent cell signaling.

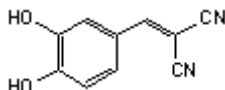
### Physical and Chemical Properties:

Batch Molecular Formula: C<sub>10</sub>H<sub>6</sub>N<sub>2</sub>O<sub>2</sub>

Batch Molecular Weight: 186.17

Physical Appearance: Yellow solid

### Batch Molecular Structure:



**Storage:** Desiccate at +4°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:

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

**Gazit et al** (1989) Tyrphostins inhibit epidermal growth factor (EGF)-receptor tyrosine kinase activity in living cells and EGF-stimulated cell proliferation. *J.Biol.Chem.* **264** 14503. PMID: 2788167.

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

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

**Soltoff** (2004) Evidence that tyrphostins AG10 and AG18 are mitochondrial uncouplers that alter phosphorylation-dependent cell signaling. *J.Biol.Chem.* **279** 10910. PMID: 14688271.

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

#### bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

#### North America

Tel: (800) 343 7475

#### China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

#### Europe Middle East Africa

Tel: +44 (0)1235 529449

#### Rest of World

[www.tocris.com/distributors](http://www.tocris.com/distributors)

Tel: +1 612 379 2956