

Certificate of Analysis

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Product Name: CHC

Catalog No.: 5029

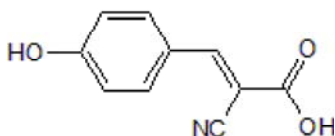
Batch No.: 2

CAS Number: 28166-41-8

IUPAC Name: 2-Cyano-3-(4-hydroxyphenyl)-2-propenoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₇NO₃
Batch Molecular Weight: 189.17
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
 ethanol to 20 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.49	3.73	7.4
Found	63.55	3.69	7.49

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

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Catalog No.: 5029

Batch No.: 2

CAS Number: 28166-41-8

IUPAC Name: 2-Cyano-3-(4-hydroxyphenyl)-2-propenoic acid

Description:

Monocarboxylic acid transport (MCT) inhibitor. Exhibits antitumoral and antiangiogenic activity in gliomas *in vivo*; decreases glycolytic metabolism, migration, and invasion in U251 cells. Enhances the effect of antitumor agent temozolomide (Cat No. 2706). Blocks lactate efflux from glioma cells and sensitizes cells to irradiation.

Physical and Chemical Properties:

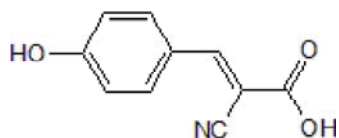
Batch Molecular Formula: C₁₀H₇NO₃

Batch Molecular Weight: 189.17

Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Miranda-Gonçalves *et al* (2013) Monocarboxylate transporters (MCTs) in gliomas: expression and exploitation as therapeutic targets. *Neuro.Oncol.* **15** 172. PMID: 23258846.

Colen *et al* (2006) Metabolic remodeling of malignant gliomas for enhanced sensitization during radiotherapy: an *in vitro* study. *Neurosurgery* **59** 1313. PMID: 17277695.

Fang *et al* (2006) The H⁺-linked monocarboxylate transporter (MCT1/SLC16A1): a potential therapeutic target for high-risk neuroblastoma. *Mol.Pharmacol.* **70** 2108. PMID: 17000864.

Dimmer *et al* (2000) The low-affinity monocarboxylate transporter MCT4 is adapted to the export of lactate in highly glycolytic cells. *Biochem.J.* **350** 219. PMID: 10926847.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 20 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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