

Certificate of Analysis

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Product Name: Alrestatin

Catalog No.: 0485

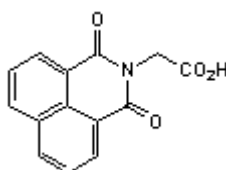
Batch No.: 1

CAS Number: 51411-04-2

IUPAC Name: 1,3-Dioxo-1*H*-benz[*d,e*]isoquinoline-2(3*H*)-acetic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₉NO₄
Batch Molecular Weight: 255.23
Physical Appearance: White crystalline solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 262 - 265°C
HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

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

Product Information

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Catalog No.: 0485

Batch No.: 1

CAS Number: 51411-04-2

IUPAC Name: 1,3-Dioxo-1*H*-benz[*d,e*]isoquinoline-2(3*H*)-acetic acid

Description:

Specific inhibitor of aldose reductase (IC_{50} = 148 μ M). Attenuates glucose-induced angiotensin II production in rat vascular smooth muscle in vitro.

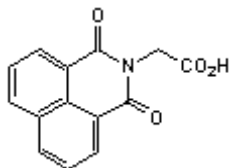
Physical and Chemical Properties:

Batch Molecular Formula: $C_{14}H_9NO_4$

Batch Molecular Weight: 255.23

Physical Appearance: White crystalline solid

Batch Molecular Structure:



Storage: Store at RT

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:

Ehrig *et al* (1994) Mechanism of aldose reductase inhibition: binding of NADP⁺/NADPH and alrestatin-like inhibitors. *Biochemistry* **33** 7157. PMID: 8003482.

Barski *et al* (1996) The C-terminal loop of aldehyde reductase determines the substrate and inhibitor specificity. *Biochemistry* **35** 14276. PMID: 8916913.

Lavrentyev *et al* (2007) Mechanism of high glucose-induced angiotensin II production in rat vascular smooth muscle cells. *Circ.Res.* **101** 455. PMID: 17626897.

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