

Product Name: Damnacanthal

Catalog No.: 1936

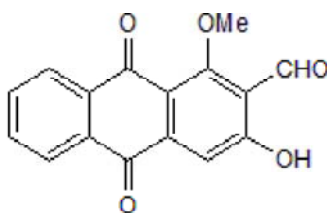
Batch No.: 1

CAS Number: 477-84-9

IUPAC Name: 9,10-Dihydro-3-hydroxy-1-methoxy-9,10-dioxo-2-anthracenecarboxaldehyde

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₀O₅
Batch Molecular Weight: 282.25
Physical Appearance: Yellow solid
Solubility: DMSO to 25 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 210 - 212°C
HPLC: Shows 98.7% purity
Mass Spectrum: Consistent with structure

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

Product Name: Damnacanthal

Catalog No.: 1936

Batch No.: 1

CAS Number: 477-84-9

IUPAC Name: 9,10-Dihydro-3-hydroxy-1-methoxy-9,10-dioxo-2-anthracenecarboxaldehyde

Description:

Potent inhibitor of p56^{lck} tyrosine kinase activity (IC₅₀ = 17 nM for inhibition of autophosphorylation). Displays 7- to 20-fold selectivity over p59^{lyn} and p60^{src} tyrosine kinases, > 40-fold selectivity over c-ErbB2, EGF- and insulin-receptor tyrosine kinases, and > 100-fold selectivity over PKA and PKC. Mobilizes intracellular Ca²⁺ in dermal fibroblasts and inhibits Ras function. Also inhibits LIMK1/2, as well as migration and invasion of breast cancer cells in vitro.

Physical and Chemical Properties:

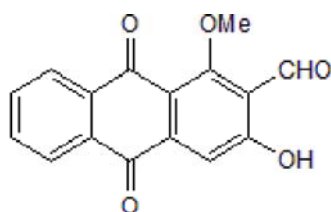
Batch Molecular Formula: C₁₆H₁₀O₅

Batch Molecular Weight: 282.25

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C. This product is packaged under an inert atmosphere.

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 25 mM

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Aoki et al (2000) Mechanism of damnacanthal-induced [Ca²⁺]_i elevation in human dermal fibroblasts. *Eur.J.Pharmacol.* **387** 119. PMID: 10650151.

Faltynek et al (1995) Damnacanthal is a highly potent, selective inhibitor of p56^{lck} tyrosine kinase activity. *Biochemistry* **34** 12404. PMID: 7547985.

Hiramatsu et al (1993) Induction of normal phenotypes in ras-transformed cells by damnacanthal from *Morinda citrifolia*. *Cancer Lett.* **73** 161. PMID: 7693328.

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
Tel:+1 612 379 2956