Natural Products

ChemFaces

Damnacanthal Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Damnacanthal

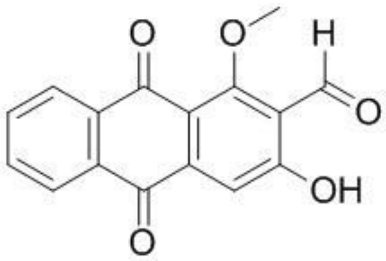
Catalog No.: CFN98723

Cas No.: 477-84-9

Purity: > 95%

M.F: $C_{16}H_{10}O_5$

M.W: 282.25



Physical Description: Yellow powder

Synonyms:3-Hydroxy-1-methoxy-9,10-dioxo-9,10-dihydro-anthracene-2-carbaldehyde.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The fruit of *Morinda citrifolia Linn.*

[Biological Activity or Inhibitors]

Damnacanthal, an anthraquinone compound, is isolated from the roots of Morinda citrifolia

L. (noni), which has been used for traditional therapy in several chronic diseases including cancer, damnacanthal increases antitumorigenic activity in human colorectal cancer cells and that C/EBPβ plays a role in damnacanthal-induced NAG-1 expression.[1]

Damnacanthal is a highly potent, selective inhibitor of p56lck tyrosine kinase activity.[2]

Damnacanthal activates p38 MAPK by mediates apoptosis in SKHep 1 cells through the DR5/TRAIL and TNFR1/TNF-alpha and p53 pathways. [3]

Damnacanthal has antinociceptive and anti-inflammatory actions in mice.[4]

Damnacanthal can act as an immunomodulatory agent which may be very useful for maintaining a healthy immune system.[5]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method][6]

Mobile phase: 0.5% Acetic acid in water- Acetonitrile,gradient elution ;

Flow rate: 1.3 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 250 nm.

[Storage]

2-8℃, Protected from air and light, refrigerate or freeze.

[References]

[1] Nualsanit T, Rojanapanthu P, Gritsanapan W, *et al. J.Nutr. Biochem., 2012, 23(8): 915-23.*

[2] Faltynek C R, Schroeder J, Mauvais P*, et al. Biochemistry, 1995, 34(38):12404-10.*

[3] Lin F L, Hsu J L, Chou C H*, et al. Eur. J.Pharmacol., 2011, 650(1):120-9.*

[4] Okusada K, Nakamoto K, Nishida M, *et al. Biol. Pharmaceut. Bull., 2011, 34(1):103-7.*

[5] Alitheen N B, Manaf A A, Yeap S K, *et al. Pharm. Biol., 2010, 48(4):446-52.*

[6] Kiathevest K, Goto M, Sasaki M*, et al. Sep. Purif. Technol., 2009, 66(1):111-7.*

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