Natural Products

ChemFaces

Indirubin Datasheet

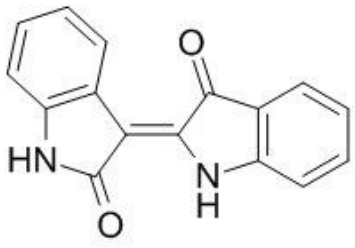
5th Edition (Revised in January, 2017)

[Product Information]

Name: Indirubin

Catalog No.: CFN90239

Cas No.: 479-41-4



Purity: >=98%

M.F: $C_{16}H_{10}N_2O_2$

M.W: 262.26

Physical Description: Powder

Synonyms:2-Ylidene)-1,3-dihydro;[2,3'-Biindolinylidene]-2',3-dione.

[Intended Use]

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

[Source]

The herbs of *Indigofera tinctoria L.*

[Biological Activity or Inhibitors]

Indirubin and meisoindigo induce hematologic remission in patients with chronic phase (CP) myelogenous leukemia as effective as hydroxyurea and busulfan.[1]

The endogenous levels and potencies of indirubin and indigo are such that they activate Aryl hydrocarbon receptor (AhR) -mediated signaling mechanisms in vivo, AhR is a ligand-activated transcription factor that regulates genes involved in xenobiotic metabolism, cellular proliferation, and differentiation.[2]

Indirubin compounds have antitumor activity, which is at least partially due to inhibition of the Src-Stat3 signaling pathway. [3]

Indirubin has anti-inflammatory effect, it can significantly inhibit the ear swelling of 2,4, 6-trinitro-l-chlorobenzene (TNCB)-elicited mice.[4]

Indirubin has immunomodulatory activity on the expression of regulated on activation, normal T cell expressed and secreted (RANTES).[5]

Indirubin as the major active component of indigo naturalis, the anti-psoriatic effects of indigo naturalis are mediated, at least in part, by modulating the proliferation and differentiation of keratinocytes.[6]

Indirubin shows antifungal activity and may be useful in the treatment of dermatophytosis.[7]

Indirubin has anti-angiogenic activity, which may partly contribute to its anti-leukemic and anti-psoriatic properties and may be valuable for the treatment of diseases with excessive angiogenesis.[8]

[Solvent]

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

[HPLC Method][9]

Mobile phase: Methanol -H2O=75:25 ;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 289 nm.

[Storage]

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

[References]

[1] Xiao Z, Hao Y, Liu B, *et al. Leukemia & Lymphoma, 2002, 43(9):1763-8.*

[2] Adachi J, Mori Y, Matsui S, *et al. J. Biol. Chem.,2001, 276(34):31475-8.*

[3] Nam S, Buettner R, Turkson J, *et al. P. Natl. Acad. Sci.U. S. A., 2005, 102(17): 5998-6003.*

[4]Kunikata T, Tatefuji T, Aga H*, et al. Eur. J. Pharmacol., 2000, 410(1):93-100.*

[5] Mak N K, Leung C Y, Wei X Y, *et al. Biochem. Pharmacol.,2004 Jan 1;67(1):167-74.*

[6] Lin Y K, Leu Y L, Yang S H, *et al. J. Dermatol. Sci., 2009, 54(3):168-74.*

[7] Ponnusamy K, Petchiammal C, Mohankumar R, *et al. J. Ethnopharmacol., 2010, 132 (1):349-54.*

[8] Alex D, Lam I K, Lin Z, *et al. J. Ethnopharmacol., 2010, 131(2):242-7.*

[9] Yin Z, Wang W, You Y, *et al. Zhongguo Zhong yao za zhi , 2010, 35(9):1148-51.*

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