

Berberrubine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Berberrubine

Catalog No.: CFN90509

Cas No.: 15401-69-1

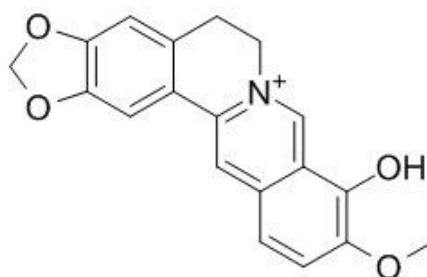
Purity: > 98%

M.F: C₁₉H₁₆NO₄⁺

M.W: 322.33

Physical Description: Powder

Synonyms: 9-Berberoline-chloride; 5,6-Dihydro-9-Hydroxy-10-methoxybenzo[g]-1,3-benzodioxolo[5,6-a]quinolizinium chloride.



[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 *Coptis chinensis* Franch.

[Biological Activity or Inhibitors]

Berberrubine (BRB), the active metabolite of berberine (BBR), it shows not only a stronger lipid-lowering effect than berberine but also a specific nephrotoxicity in mice fed with high fat diet (HFD).^[1]

Berberrubine is a new class of antitumor agent which exhibits the topoisomerase II poison activity as well as catalytic inhibition activity and may have a potential clinical value in cancer treatment, it induces DNA cleavage in a site-specific and concentration-dependent manner.^[2]

Berberrubine dose-dependently inhibits IL-8 and MCP-1 expression and protein secretion induced by IL-1 β or TNF- α in human retinal pigment epithelial cell line; the effect on chemotactic factors may be via suppression of NF- κ B translocation.^[3]

Berberrubine and its derivatives have antifungal activities.^[4]

Berberrubine possesses hepatoprotective properties.^[5]

[Solvent]

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

[HPLC Method]^[6]

Mobile phase: Methanol -H₂O-Glacial acetic acid=35:65:1;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 280 nm.

[Storage]

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

[References]

[1] Na Y, Sun R, Zhao Y, *et al. Environ. Toxicol. Phar.*, 2016, 46:319-28.

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- [3] Cui H S, Hayasaka S, Zhang X Y, *et al. Life Sci.*, 2006, 79(10):949-56.
- [4] Park K D, Lee J H, Kim S H, *et al. Bioorg. Med. Chem. Lett.*, 2006, 16(15):3913-6.
- [5] El-Salam M A, Mekky H, El-Naggar E M B, *et al. S. Afr. J.Bot.* 2015, 97:191-5.
- [6] Ma L, Yang X W. *Chinese Journal of Materia Medica*. 2007, 32(23):2523-7.

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