

Palmatine hydrochloride Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Palmatine hydrochloride

Catalog No.: CFN99124

Cas No.: 10605-02-4

Purity: > 98%

M.F: C₂₁H₂₂ClNO₄

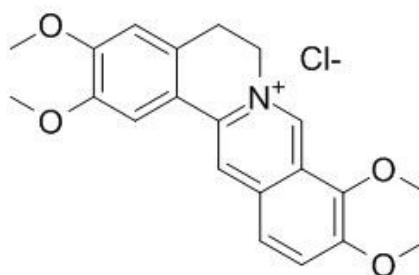
M.W: 387.86

Physical Description: White powder

Synonyms: Berbericinine; Hindarinine; Gindarinine;

7,8,13,13a-Tetradehydro-2,3,9,10-tetrahydroxyberbinium;

2,3,9,10-Tetramethoxy-5,6-dihydroisoquinolino[2,1-b]isoquinolin-7-ium chloride.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Care and daily chemicals;
7. Intermediates & Fine Chemicals;
8. Ingredient in supplements;
9. Others.

[Source]

The rhizomes of *Coptis chinensis Franch.*

[Biological Activity or Inhibitors]

Palmatine hydrochloride (PaH), a naturally occurring photosensitizer isolated from traditional Chinese medicine (TCM), can induce remarkable cell apoptosis, significantly increase intracellular ROS level and significantly kill breast cancer MCF-7 cells; it also has potential in photodynamic therapy on colon adenocarcinoma.^[1,2]

Palmatine Hydrochloride has anti-*C. albicans* effect, the effect is mainly influenced by the growth rate constant ($k(2)$) and maximum power output $P(m)(2)$ of phase II; it mixes with berberine hydrochloride elicit antifungal activities and could be used to treat *M. canis* in rabbits. ^[3,4]

The quenching mechanism of palmatine hydrochloride (PMT) on bovine hemoglobin (BHb) is a static process, the electrostatic force played an important role in the conjugation reaction between BHb and PMT. ^[5]

Palmatine Hydrochloride treatment can reduce blood sugar and oxidative stress in STZ induced diabetic rats.^[6]

[Solvent]

Pyridine, DMSO, Ethanol, Methanol, Hot water.

[HPLC Method]^[7]

Mobile phase: Acetonitrile-0.1% Phosphoric acid H₂O=53:47(0.4g dodecyl sodium sulfate added into 100 ml solution);

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 345 nm.

[Storage]

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

[References]

- [1] Wu J, Xiao Q C, Zhang N, *et al. Photodiagn. Photodyn.* , 2016,7.18.
- [2] Wu J, Xiao Q, Zhang N, *et al. Photodiagn. Photodyn.* , 2016, 15:53-8.
- [3] Kong W, Zhao Y, Wang J, *et al. Acta Chim. Sin. Chinese Edition*, 2009, 67(21):2511-6.
- [4] Xiao C W, Ji Q A, Wei Q, *et al. BMC Complem. Altern. M.*, 2015, 15(1):1-15.
- [5] Liu B, Yan X, Cao S, *et al. Lumin J. Biol. Chem. Lumin*, 2014, 29(3):211-8.
- [6] Z Pakseresht, P Norouzi, V Hojati , *et al. ZUMS Journal*. 2016; 24 (107) :119-29.
- [7] Li X , Liu G Y, Ma J L, *et al. Pharm. J. Chinese Peoples Liberation Army*, 2013(05): 458-60.

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