



Betaine hydrochloride Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Betaine hydrochloride

Catalog No.: CFN99547

Cas No.: 590-46-5

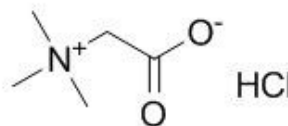
Purity: >=98%

M.F: C₅H₁₂ClNO₂

M.W: 153.60

Physical Description: White cryst.

Synonyms: 1-Carboxy-N,N,N-trimethylmethanaminium chloride.



[Intended Use]

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

[Source]

The roots of *Beta vulgaris*.

[Biological Activity or Inhibitors]

Betaine hydrochloride has protective effects against hypoxic mice.^[1]

Betaine hydrochloride can increase the secreting of thyroxine (T3) and insulin and regulate the metabolism of organism by the hormones, thus it prompts fish growth and also improves intestine figuration.^[2]

Betaine hydrochloride shows promise for treatment of nonalcoholic steatohepatitis. ^[3]

Betaine hydrochloride has sedative, antipyretic and analgesic effects;when betaine hydrochloride was given orally 250~1000 mg/kg, the motor activity of mice was reduced 50 ~ 81%, the hypnotic effect of pentobarbital was markedly increased after oral administration of betaine hydrochloride at the dosage of 500 mg/kg or 1000 mg/kg; analgesic effect of betaine was demonstrated in mice by the hot plate method (55℃) and the acetic acid writhing test when given intraperitoneally at the dosage of 540 mg/kg or 900 mg/kg; betaine hydrochloride (500 mg/kg) given by gastric intubation was shown to have antipyretic effect in rabbits with iv TAB vaccine fever, but not in normotheric rabbits.^[4]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[5]

Mobile phase: Acetonitrile- Tetrahydrofuran- 0.5% Phosphoric acid in water =46:2:52;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 265 nm.

[Storage]

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

[References]

[1] Gao Y S, Chen W, Chen M H, *et al.* *Chin. Pharm. Bull.*, 2005, 21(12):1525-7.

[2] Lu Q E, Li X X , Li Z Q .*Journal of Fisheries of China*, 2003, 27(6):564-9.

[3] Laube J, Honscha W. *Inpharma Weekly*, 2001, 1311(1):10-10.

[4] Xu D Y, Yang D L, Ding Y S, *et al.* *Acta Pharm. Sin.*, 1986, 21(1):61-4.

[5] Liu Y H, Liang J Q. *Acta Medicinae Sinica*, 2010, 23(2):154-7.

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