Natural Products



Fraxetin Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Fraxetin

Catalog No.: CFN99113

Cas No.: 574-84-5

Purity: >=98%

M.F: C₁₀H₈O₅

M.W: 208.17

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Physical Description: Cryst.

Synonyms:7,8-Dihydroxy-6-methoxychromen-2-one;7,8-Dihydroxy-6-methoxy-2H-1-ben zopyran-2-one.

[Intended Use]

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

[Source]

The bark of *Fraxinus brngeana DC*.

[Biological Activity or Inhibitors]

Fraxetin has dual-antioxidative functions, it has direct protective properties against low-density lipoprotein oxidation at lower concentrations, and higher concentrations of fraxetin induce antioxidant enzymes via Nrf2/ARE activation.^[1]

Fraxetin prevents rotenone-induced apoptosis by induction of endogenous glutathione in human neuroblastoma cells.^[2]

Fraxetin has antihyperglycemic effect on hepatic key enzymes of carbohydrate metabolism in streptozotocin-induced diabetic rats.^[3]

Fraxetin has inhibitory effect on various bacterial strains, it can disrupt nucleic acid and protein synthesis by preventing topoisomerase from binding to DNA.^[4]

Fraxetin exhibits potent protective effects against CCl₄ induced oxidative stress and hepatic fibrosis.^[5]

[Solvent]

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

[HPLC Method]^[6]

Mobile phase: Methanol- 0.2% Acetic acid in water=43:57 ; Flow rate: 1.0 ml/min; Column temperature: Room Temperature; The wave length of determination:350 nm.

[Storage]

 $2\text{-}8\,^\circ\!\!\mathbb{C}$, Protected from air and light, refrigerate or freeze.

[References]

[1] Thuong P T, Pokharel Y R, Mooyeol L, et al. Biol. Pharm. Bull., 2009, 32(9):1527-32.

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48-56.

[3] Murali R, Srinivasan S, Ashokkumar N. Biochimie, 2013, 95(10):1848-54.

[4] Wang H, Zou D, Xie K, et al. Mol. Med. Rep., 2014 Nov; 10(5): 2341-5.

[5] Chen X, Ying X, Zhang W, et al. Int. Immunopharmacol., 2013 Nov; 17(3):543-7.

[6] Yu J, Zhao D, Fu Y, et al. Journal of Northeast Forestry University, 2011, 39(3):106-56.

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