Natural Products

ChemFaces

D-Mannitol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: D-Mannitol

Catalog No.: CFN90046

Cas No.: 69-65-8

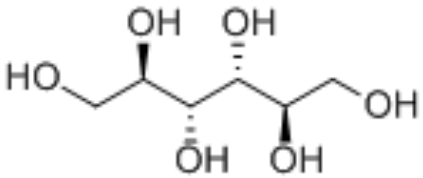
Purity: >=98%

M.F: $C_6H_{14}O_6$

M.W: 182.17

Physical Description: Powder

Synonyms: 1,2,3,4,5,6-Hexanehexol; Cordycepic acid;Hexanehexol;Hexanhexol.



[Intended Use]

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

[Source]

The herbs of *Peucedanum harry-smithii var. subglabrum.*

[Biological Activity or Inhibitors]

D-mannitol, a specific hydroxyl free radical scavenger, can reduce the developmental toxicity of hydroxyurea in rabbits.[1]

A. fumigatus can produce and release sufficient D-mannitol in the tissues of infected animals to raise serum D-mannitol levels, thus, D-mannitol is a potential diagnostic marker for aspergillosis.[2]

D-Mannitol has thermal properties, it could be as a Phase Change Material (PCM) for latent heat storage system. [3]

D-mannitol has neuroprotectant effect in reducing the sensory neurological disturbances seen in ciguatera poisoning, it does not act purely as an osmotic agent to reduce swelling of nerves, but involves a more complex action dependent on the Na(v) channel subtype, possibly to alter or reduce toxin association.[4]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][5]

HPLC-ELSD

Mobile phase: H2O;

Flow rate: 0.6 ml/min;

Column temperature: 65 ℃;

Drift tube temperature: 110 ℃;

Flow rate of gas : 3.0L/min;

Carrier gas: N2.

[Storage]

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

[References]

[1] Desesso J M, Scialli A R, Goeringer G C. *Birth Defects Research Part A: Clinical and Molecular Teratology, 1994, 49(4):248-59.*

[2] Wong B, Brauer K L, Tsai R R, *et al. J.Infect. Dis., 1989, 160(1):95-103.*

[3] Kumaresan G, Velraj R, Iniyan S.*J. Appl. Sci., 2011, 11(16):3044-8.*

[4]Birinyi-Strachan L C, Davies M J, Lewis R J,*et al.Neuropharmacology,2005, 49(5):669-86.*

[5] Han D, Chen X,Gao J,*et al. China Pharmacist, 2014, 17(1):67-9.*

[Contact]

Address:
S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com
Tel: +86-27-84237783
Fax: +86-27-84254680
Web: www.chemfaces.com
Tech Support: service@chemfaces.com