

# **D-Glucosamine hydrochloride Datasheet**

4<sup>th</sup> Edition (Revised in July, 2016)

HCI

#### [ Product Information ]

Name: D-Glucosamine hydrochloride

Catalog No.: CFN99194

Cas No.: 66-84-2

**Purity: >=98%** 

M.F: C<sub>6</sub>H<sub>13</sub>NO<sub>5</sub>.HCl

M.W: 215.63

Physical Description: Powder

**Synonyms:** 2-Desoxy-2-amino-D-glucose hydrochloride.

#### [ Intended Use ]

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

#### [Source]

Present in mucopolysaccharides and in polysaccharides found in *bacteria*, *fungi*, *higher* plants.

#### [ Biological Activity or Inhibitors]

D-Glucosamine hydrochloride (GlcN67HCI) is an endogenous amino monosaccharide

synthesized from glucose that is useful in the treatment of joint diseases in both humans

and animals. [1]

Fucoxanthin is an effective anti-arthritis agent through an antiinflammation mechanism,

fucoxanthin may enhance therapeutic effect of glucosamine hydrochloride on rat arthritis

through mechanism of antiinflammation.[2]

D-glucosamine hydrochloride has antimicrobial effect on the common 21 strains of food

spoilage microorganisms, it could as preservative agent was used to preserve nature eleo

iuice.[3]

D-Glucosamine Hydrochloride has antitumor effects. [4]

D-glucosamine hydrochloride induces cell apoptosis by blocking of cell-cycle.<sup>[5]</sup>

## [Solvent]

Pyridine, Methanol, Ethanol, etc.

## [ HPLC Method ]<sup>[6]</sup>

Mobile phase: Methanol -H2O-Acetic acid=10: 89.6: 0.04;

Flow rate: 1.2 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 254 nm.

## [Storage]

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

## [References]

[1] Osaki T, Azuma K, Kurozumi S, et al. Mar. Drugs, 2012, 10(8):1873-82.

[2] Gong D, Chu W, Jiang L, et al. Phytotherapy Research Ptr, 2014, 28(7):1054-63.

[3] Chen X. Fisheries Science, 2001, 18(2):14-5.

[4] Li Y M, Tang MY, Xia W. Chinese Journal of Natural Medicines, 2003, 1(4):237-9.

[5] Cao X M, Zhang Z Z, Wang J. Chinese Journal of Marine Drugs, 2008, 27(6):20-5.

[6] Liang Z, Leslie J, Adebowale A, et al. J. Pharmaceut. Biomed., 1999, 20(5):807-14.

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