

Chondroitin sulfate Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Chondroitin sulfate

Catalog No.: CFN99191

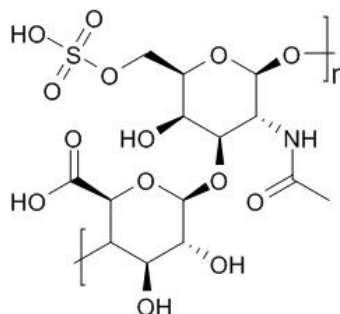
Cas No.: 9007-28-7

Purity: >=98%

M.F: (C₁₄H₂₁NO₁₄S)_n

M.W: (460)_n

Physical Description: Powder



Synonyms: (5ξ)-2-(Carboxyamino)-2-deoxy-3-O-β-D-glucopyranuronosyl-4-O-sulf

o-α-L-arabino-hexopyranose; Chondroitin-4-sulfate; 2[(R)-4((3R,5S,7R,8R,9S,10S,12S,13

R,14S,17R)-3,7,12-trihydroxy-10,13-dimethyl-hexadecahydrocyclopenta[a]phenanthren-1

7-yl)pentanoylamino]ethanesulfonic acid; [14C]-Taurocholic acid; Chondroitinsulfuric acid.

[Intended Use]

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

[Source]

From *Shark cartilage*.

[Biological Activity or Inhibitors]

Glucosamine and chondroitin sulfate alone or in combination did not reduce pain effectively in the overall group of patients with osteoarthritis of the knee, exploratory analyses suggest that the combination of glucosamine and chondroitin sulfate may be effective in the subgroup of patients with moderate-to-severe knee pain.^[1]

Chondroitin sulfate is a regulator of neuronal patterning in the retina, in the developing mammalian retina, gradual regression of chondroitin sulfate may help control the onset of ganglion cell differentiation and initial direction of their axons.^[2]

Chondroitin sulfate has anti-inflammatory and chondroprotective actions.^[3]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[4]

Mobile phase: Acetonitrile-0.5% Phosphoric acid-Isopropanol=15:85:1 ;

Flow rate: 1.0 ml/min;

Column temperature: 40 °C;

The wave length of determination: 209 nm.

[Storage]

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

[References]

[1] Clegg D O, Reda D J, Harris C L, *et al.* *N. Engl .J. Med.*, 2006 Feb 23;354(8):795-808.

[2] Brittis P A, Canning D R, Silver J. *Science*, 1992, 255(5045):733-6.

[3] Iovu M, Dumais G S P. *Osteoarthritis Cartilage*, 2008, 16(3):S14-8.

[4] Pan Z G, Tao L P, Li A Z, *et al.* *Chinese Journal of Pharmaceuticals*, 2007, 38(9):659-

61.

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