

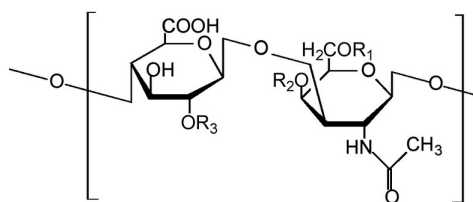
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IMPORT - EXPORT

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CONDROITINA SOLFATO

CHONDROITIN SULPHATE

CHONDROITIN SULFATE



Chemical structure of one unit in a chondroitin sulfate chain. Chondroitin-4-sulfate:  $R_1 = H$ ;  $R_2 = SO_3H$ ;  $R_3 = H$ . Chondroitin-6-sulfate:  $R_1 = SO_3H$ ;  $R_2, R_3 = H$ .

Mol. wt.: 10,000 - 100,000 Da

**Chondroitin sulfate 9007-28-7; 9082-07-9**

CHEMICAL IDENTIFICATION CAS Registry Number: 9007-28-7 , 9082-07-9 (sodium salt)

Chemical Abstracts Service Name: Chondroitin sulfate (9CI)

Synonyms: 9007-28-7:

chondroitin sulfuric acid, chondroitin polysulfate, chonsurid, chondroitin sulphate (ChemID, 2002) 9082-07-9:

chondroitin hydrogen sulfate, sodium salt; chondron; chondroitin polysulfate sodium; sodium chondroitin sulfate (ChemID, 2002)

Structural Class: Glycosaminoglycan; mucopolysaccharide

Structure and Molecular Weight: O O O O O HN O CH3 COOH OH O O O O O R2O H2COR1 HN O CH3  
COOH OH n OR3 Chondroitin sulfate A R1: H R2: SO3H R3: H Chondroitin sulfate C R1: SO3H R2: H R3:

**Chondroitin sulfate** is a sulfated [glycosaminoglycan](#) (GAG) composed of a chain of alternating sugars ([N-acetylgalactosamine](#) and [glucuronic acid](#)). It is usually found attached to proteins as part of a [proteoglycan](#). A chondroitin chain can have over 100 individual sugars, each of which can be sulfated in variable positions and quantities. Understanding the functions of such diversity in chondroitin sulfate and related glycosaminoglycans is a major goal of [glycobiology](#). Chondroitin sulfate is an important structural component of [cartilage](#) and provides much of its resistance to [compression](#). Along with [glucosamine](#), chondroitin sulfate has become a widely used [dietary supplement](#) for treatment of [osteoarthritis](#).

## References

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6. <sup>△</sup> McAlindon TE, LaValley MP, Gulin JP, Felson DT (2000). "Glucosamine and Chondroitin for Treatment of Osteoarthritis: A Systematic Quality Assessment and Meta-analysis". *JAMA* **283**: 1469–1475. [PMID 10732937](#).
7. <sup>△</sup> Clegg DO, Reda DJ, Harris CL, Klein MA, O'Dell JR, Hooper MM, Bradley JD, Bingham CO 3rd, Weisman MH, Jackson CG, Lane NE, Cush JJ, Moreland LW, Schumacher HR Jr, Oddis CV, Wolfe F, Molitor JA, Yocum DE, Schnitzer TJ, Furst DE, Sawitzke AD, Shi H, Brandt KD, Moskowitz RW, Williams HJ (2006). "Glucosamine, chondroitin sulfate, and the two in combination for painful knee osteoarthritis". *New Engl J Med* **354** (8): 795–808. [PMID 16495392](#).