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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
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- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

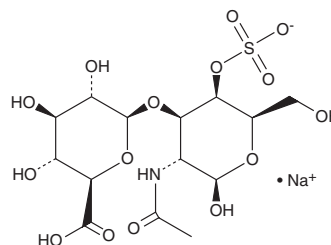
PRODUCT INFORMATION



Chondroitin Sulfate A (sodium salt)

Item No. 37801

CAS Registry No.: 9082-07-9
Formal Name: chondroitin, hydrogen sulfate, monosodium salt
Synonyms: Chondroitin-4-sulfate, CSA
MF: C₁₄H₂₂NO₁₅S • Na
FW: 499.4
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Chondroitin Sulfate A (CSA) (sodium salt) is supplied as a solid. Aqueous solutions of CSA (sodium salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of CSA (sodium salt) in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

CSA is a glycosaminoglycan.¹ It can be biosynthetically polymerized in a variety of species and serve as structural components in cartilage when tethered to extracellular proteins. CSA (0.5 or 1 mg/ml) reduces LPS-induced decreases in viability, as well as LPS-induced increases in Tnf- α , Il-1 β , Il-6, Ifn- γ , inducible nitric oxide synthase (iNOS), and matrix metalloproteinase-1 (Mmp-1) levels, nitric oxide (NO) production, and NF- κ B activity in primary mouse chondrocytes.² Extracellular CSA is required for *P. falciparum*-infected erythrocytes to adhere to the endothelium in the brain and placenta and avoid immune detection.³ *In vivo*, CSA (30, 60, or 120 mg/kg per day) reduces arthritis incidence and joint swelling, decreases 8-isoprostane levels in articular cartilage cells, and increases I κ B α levels in cartilage cell cytoplasm in a mouse model of collagen-induced arthritis.⁴

References

1. Kwok, J.C.F., Warren, P., and Fawcett, J.W. Chondroitin sulfate: A key molecule in the brain matrix. *Int. J. Biochem. Cell Biol.* **44(4)**, 582-586 (2012).
2. Campo, G.M., Avenoso, A., Campo, S., et al. Glycosaminoglycans modulate inflammation and apoptosis in LPS-treated chondrocytes. *J. Cell. Biochem.* **106(1)**, 83-92 (2009).
3. Reeder, J.C., Cowman, A.F., Davern, K.M., et al. The adhesion of *Plasmodium falciparum*-infected erythrocytes to chondroitin sulfate A is mediated by *P. falciparum* erythrocyte membrane protein 1. *Proc. Natl. Acad. Sci. U.S.A.* **96(9)**, 5198-5120 (1999).
4. Campo, G.M., Avenoso, A., Campo, S., et al. Chondroitin-4-sulphate inhibits NF- κ B translocation and caspase activation in collagen-induced arthritis in mice. *Osteoarthritis Cartilage* **16(12)**, 1474-1483

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM