Creative Enzymes®

chondroitin-sulfate-ABC endolyase

Cat. No. EXWM-5096

Lot. No. (See product label)

Introduction

Description	This enzyme degrades a variety of glycosaminoglycans of the chondroitin-sulfate- and dermatan-sulfate type. Chondroitin sulfate, chondroitin-sulfate proteoglycan and dermatan sulfate are the best substrates but the enzyme can also act on hyaluronan at a much lower rate. Keratan sulfate, heparan sulfate and heparin are not substrates. In general, chondroitin sulfate (CS) and dermatan sulfate (DS) chains comprise a linkage region, a chain cap and a repeat region. The repeat region of CS is a repeating disaccharide of glucuronic acid (GlcA) and N-acetylgalactosamine (GalNAc) [-4)GlcA(β1-3)GalNAc(β1-]n, which may be O-sulfated on the C-4 and/or C-6 of GalNAc and C-2 of GlcA. GlcA residues of CS may be epimerized to iduronic acid (IdoA) forming the repeating disaccharide [-4)IdoA(α1-3)GalNAc(β1-]n of DS. Both the concentrations and locations of sulfate-ester substituents vary with glucosaminoglycansource. The related enzyme EC 4.2.2.21, chondroitin-sulfate-ABC exolyase, has the same substrate specificity but removes disaccharide residues from the non-reducing ends of both polymeric chondroitin sulfates and their oligosaccharide fragments produced by EC 4.2.2.20.
Synonyms	chondroitinase (ambiguous); chondroitin ABC eliminase (ambiguous); chondroitinase ABC (ambiguous); chondroitin ABC lyase (ambiguous);chondroitin sulfate ABC lyase (ambiguous); ChS ABC lyase (ambiguous); chondroitin sulfate ABC endoeliminase; chondroitin sulfate ABC endolyase; ChS ABC lyase I

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 4.2.2.20
CAS No.	9024-13-9
Reaction	Endolytic cleavage of (1→4)-β-galactosaminic bonds between N-acetylgalactosamine and either D-glucuronic acid or L-iduronic acid to produce a mixture of Δ4-unsaturated oligosaccharides of different sizes that are ultimately degraded to Δ4-unsaturated tetra- and disaccharides
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.