

## Chondroitinase ABC Protein, *P. vulgaris* (His)

<b>Cat. No.:</b>	HY-P79244
<b>Synonyms:</b>	Chondroitin sulfate ABC endolyase; Chondroitin ABC endoeliminase; Chondroitin ABC lyase I; Chondroitin sulfate ABC lyase I; ChS ABC lyase I; Chondroitinase ABC I; cABC I; Endochondroitinase ABC; INN: Condoliase
<b>Species:</b>	Others
<b>Source:</b>	<i>E. coli</i>
<b>Accession:</b>	P59807 (A25-P1021)
<b>Gene ID:</b>	2827933
<b>Molecular Weight:</b>	Approximately 110 kDa

### PROPERTIES

#### AA Sequence

ATSNPAFDPK	NLMQSEIYHF	AQNNPLADFS	SDKNSILTLS
DKRSIMGNQS	LLWKWKGGSS	FTLHKKLIVP	TDKEASKAWG
RSSTPVFSFW	LYNEKPIDGY	LTIDFGEKLI	STSEAQAGFK
VKLDFTGWRA	VGVSLNNDLE	NREMTLNATN	TSSDGTQDSI
GRSLGAKVDS	IRFKAPSNVS	QGEIYIDRIM	FSVDDARYQW
SDYQVKTRLS	EPEIQFHNVK	PQLPVTPENL	AAIDLIRQL
INEFVGGEKE	TNLALEENIS	KLKSDFDALN	IHTLANGGTQ
GRHLITDKQI	IYQPENLNS	QDKQLFDNYV	ILGNYTTLMF
NISRAYVLEK	DPTQKAQLKQ	MYLLMTKHLL	DQGFVKGSAL
VTTHHWGYSS	RWWYISTLLM	SDALKEANLQ	TQVYDSLWLWY
SREFKSSFDM	KVSADSSDL	YFNTLSRQHL	ALLLLEPDDQ
KRINLVNTFS	HYITGALTQV	PPGGKDGLRP	DGTAWRHEGN
YPGYSFPAFK	NASQLIYLLR	DTPFSVGESG	WNNLKKAMVS
AWIYSNPEVG	LPLAGRHPFN	SPSLKSVAQG	YYWLAMSAKS
SPDKTLASIIY	LAISDKTQNE	STAI FGETIT	PASLPQGFYA
FNGGAFGIHR	WQDKMVTLKA	YNTNVWSSEI	YNKDNRYGRY
QSHGVAQIVS	NGSQLSQGYQ	QEGWDWNRMQ	GATTIHLPLK
DLDSPKPHTL	MQRGERGFSG	TSSLEGQYGM	MAFDLIYPAN
LERFDPNFTA	KKSVLAADNH	LIFIGSNINS	SDKNKNVETT
LFQHAITPTL	NTLWINGQKI	ENMPYQTTLQ	QGDWLIDSNG
NGYLITQAEK	VNVSRQHQVS	AENKNRQPTE	GNFSSAWIDH
STRPKDASYE	YMVFLDATPE	KMGEMAQKFR	ENNGLYQVLR
KDKDVHIIID	KLSNVTGYAF	YQPASIEDKW	IKKVNKPAIV
MTHRQKDTLI	VSAVTPDLNM	TRQKAATPVT	INVTINGKWQ
SADKNSEVKY	QVSGDNTELT	FTSYFGIPQE	IKLSPLP

#### Biological Activity

Measured by its ability to hydrolyze chondroitin sulfate. The specific activity is >15,000 pmol/min/μg.

#### Appearance

Solution

<b>Formulation</b>	Liquid from sterile 50 mM Tris-HCL, 300 mM NaCl, pH 8.0.
<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	N/A.
<b>Storage &amp; Stability</b>	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Shipping with dry ice

## DESCRIPTION

### Background

Chondroitinase ABC protein is an endolytic glycosaminoglycan lyase with broad specificity, capable of degrading various polysaccharides, including chondroitin, chondroitin-4-sulfate, chondroitin-6-sulfate, dermatan sulfate, and, to a lesser extent, hyaluronan. This enzyme operates through beta-elimination of the 1,4-hexosaminidic bond, producing unsaturated tetrasaccharides and disaccharides. Importantly, Chondroitinase ABC does not exhibit activity against keratan sulfate, heparan sulfate, and heparin. Its ability to disrupt the normal organization of the extracellular matrix (ECM) positions it as a key player in promoting functional recovery in the injured central nervous system (CNS). This underscores its potential therapeutic significance in facilitating neural regeneration and repair through targeted modification of specific glycosaminoglycans within the ECM. (

**Caution: Product has not been fully validated for medical applications. For research use only.**

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