Heparinase III Protein, P. heparinus (His)

Cat. No.:	HY-P79211
Synonyms:	Heparin-sulfate lyase; hepC; Heparin-sulfate eliminase; Heparinase III; HepIII; Heparitin-sulfate lyase
Species:	Others
Source:	E. coli
Accession:	AAB18278 (Q25-P659)
Gene ID:	8254931
Molecular Weight:	Approximately 74 kDa

PROPERTIES

AA Sequence

Q S S S I T R K D F	D H I N L E Y S G L	E K V N K A V A A G	N Y D D A A K A L L
A Y Y R E K S K A R	E P D F S N A E K P	A D I R Q P I D K V	T R E M A D K A L V
H Q F Q P H K G Y G	Y F D Y G K D I N W	Q M W P V K D N E V	R W Q L H R V K W W
Q A M A L V Y H A T	G D E K Y A R E W V	Y Q Y S D W A R K N	P L G L S Q D N D K
F V W R P L E V S D	R V Q S L P P T F S	L F V N S P A F T P	A F L M E F L N S Y
H Q Q A D Y L S T H	Y A E Q G N H R L F	E A Q R N L F A G V	S F P E F K D S P R
W R Q T G I S V L N	T E I K K Q V Y A D	G M Q F E L S P I Y	H V A A I D I F L K
A Y G S A K R V N L	E K E F P Q S Y V Q	T V E N M I M A L I	S I S L P D Y N T P
M F G D S W I T D K	N F R M A Q F A S W	A R V F P A N Q A I	K Y F A T D G K Q G
K A P N F L S K A L	S N A G F Y T F R S	G W D K N A T V M V	L K A S P P G E F H
A Q P D N G T F E L	F I K G R N F T P D	A G V F V Y S G D E	A I M K L R N W Y R
Q T R I H S T L T L	D N Q N M V I T K A	R Q N K W E T G N N	L D V L T Y T N P S
Y P N L D H Q R S V	L F I N K K Y F L V	I D R A I G E A T G	N L G V H W Q L K E
D S N P V F D K T K	N R V Y T T Y R D G	N N L M I Q S L N A	D R T S L N E E E G
K V S Y V Y N K E L	K R P A F V F E K P	K K N A G T Q N F V	S I V Y P Y D G Q K
A P E I S I R E N K	G N D F E K G K L N	L T L T I N G K Q Q	L V L V P

Biological Activity	Measured by its ability to liberate oligosaccharides from heparin. Which can be measured by absorbance at 232 nm. The specific activity is 432.279935 pmol/min/μg, as measured under the described conditions.
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 50 mM Tris, 300 mM NaCl, pH 7.4, 20% Glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	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.

Shipping	Shipping with dry ice

DESCRIPTION

Background	Heparinase III is the unique member of the heparinase family of heparin-degrading lyases that recognizes the ubiquitous cell-surface heparan sulfate proteoglycans as its primary substrate. Heparinase III functions in cleaving metazoan heparan sulfate and providing carbon, nitrogen and sulfate sources for microorganisms. Heparinase III specifically cleaves heparan sulfate-rich regions of acidic polysaccharides. It acts primarily at the glycosidic linkage between N-sulfated or N-acetylated glucosamine (GlcNS or GlcNAc) and glucuronic acid (GlcA) as primary sites on the condition that the C2 GlcA is not sulfated. It can limit proliferation by affecting heparan sulfate proteoglycan binding growth factors following arterial injury. Furthermore, Heparinase III is cardioprotective in a dose-dependent manner, preserves endothelial function and attenuates PMN adherence to the coronary vascular endothelium[1][2][3][4].

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