

Active Recombinant *Flavobacterium heparinum* Heparinase III protein

Cat. No. HEPSE-358 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant <i>Flavobacterium heparinum</i> Heparinase III was expressed in <i>E. coli</i> .
Species	<i>Flavobacterium heparinum</i>
Source	<i>E. coli</i>
Description	Heparin and heparan sulfate are linear, negatively charged polymers consisting of repeating units of 1→4-linked uronic acid (l-iduronic acid (IdoA) and d-glucuronic acid (GlcA)) and glucosamine. Neutralization of the anticoagulant effect of heparin and determination of plasma levels of heparin has been problematic, and the use of heparin during extracorporeal therapies can result in severe haemorrhagic complications. The eliminative depolymerization of heparin/heparan sulfate affording unsaturated oligosaccharide products is carried out by three families of enzymes. Their primary sequences show no recognizable similarity, and they have distinct specificities. Thus, heparinase I is specific for heparin cleaving the glycosidic linkage to the nonreducing end of IdoA, heparin lyase III (heparinase III) cleaves the heparan sulfate next to glucuronic acid, and heparin lyase II (heparinase II) can depolymerize both of these substrates.
Form	Hepes buffer with 30% glycerol and 0.01M Ca ²⁺⁺
Bio-activity	>50 IU/mg

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Molecular Mass	Predicted: 70,800 Da
Endotoxin	<1.0 EU per 1µg of protein (by Limulus Amoebocyte Lysate Test)
Purity	0.95
Unit Definition	One international unit (IU) is defined as the amount of enzyme that will liberate 1.0 µmole unsaturated oligosaccharides from porcine mucosal heparin per minute at 30 centigrade and pH 7.0.
Applications	WB, ELISA, Cell culture
Storage	Store at -20 centigrade for Long Term and at 4 centigrade for < 1 week. Avoid repeated freezing/thawing cycles

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