Heparinase II: *Flavobacterium heparinum*- Recombinant Protein from E.coli

Catalog Number:	1015-2E-HEPSE
Product Specification:	Heparinase II: *Flavobacterium heparinum*- Recombinant Protein from E.coli. EC 4.2.2.7
Species:	*Flavobacterium heparinum*
Expression System	E.coli
Purity (by SDS-PAGE):	95%
Molecular Weight:	Predicted: 84,100 Da
Endotoxin Level:	<1.0 EU per 1µg of protein (by Limulus Amoebocyte Lysate Test)
Size:	□ 0.1 IU □ 0.5 IU
Specific Activity:	>6 IU/mg. 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°C and pH 7.0.
Applications:	WB, ELISA, Cell culture
Formulation:	Hepes buffer with 30% glycerol and 0.01M Ca^{2++}
Storage:	Store at -20°C for Long Term and at 4°C for < 1 week. Avoid repeated freezing/thawing cycles.

Related Products:

1015-1E-HEPSE	Heparinase I: Flavobacterium heparinum, Recombinant, E.coli
1015-3E-HEPSE	Heparinase III: Flavobacterium heparinum, Recombinant, E.coli

Background

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 (1). 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.

References:

L. Yongde, H. Xinqiang and M. Wallace (2007) Arch Biochem Biophys. 2007, 460(1): 17–24.

E. Steffen, V. Ganesh, W. Stefan, G. Ranga, L. Robert., C. Charles and S. Ram (1996) Biochem. J. (1996) 315, 589-597

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