

Active Recombinant *P. heparinus* Heparinase III Protein, His-tagged

Cat. No. Heparinase III-205P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant <i>P. heparinus</i> Heparinase III Protein Gln25-Pro659, with an N-terminal Met and 6-His tag was expressed in <i>E. coli</i> .
Species	<i>P.heparinus</i>
Source	<i>E.coli</i>
ProteinLength	25-659 a.a.
Description	Heparan sulfate is a sulfated glycosaminoglycan with the repeating disaccharide units of -4HexA1,4GlcNAc beta 1. It is usually attached to the protein cores of proteoglycans found on the cell membrane and in the extracellular matrix where it binds to a variety of protein ligands and regulates a wide range of biological activities. Heparan sulfate has a domain structure where sulfated regions are interspaced with less or non-sulfated regions. Heparin shares the backbone structure with heparan sulfate but contains no non-sulfated regions. Heparinases are a family of lyases that release unsaturated oligosaccharides from heparin and heparan sulfate upon digestion. Heparinase I recognizes highly sulfated regions and is more specific for heparin. Heparinase II digests both heparin and heparan sulfate. Heparinase III prefers less-sulfated regions and is more active on heparan sulfate.
Bio-activity	Measured by its ability to liberate oligosaccharides from heparin. The specific activity

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	is >3,000 pmol/min/μg.
Molecular Mass	Predicted Molecular Mass: 74 kDa SDS-PAGE: 66 kDa, reducing conditions
N-terminal Sequence Analysis	Met
Endotoxin	<1.0 EU/μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain at 5 μg per lane.
Applications	Enzyme Activity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after opening.
Storage Buffer	Supplied as a 0.2 μm filtered solution in Tris, NaCl and Glycerol.
Shipping	The product is shipped with polar packs.
Recombinant P. heparinus Heparinase III Protein Enzyme Activity	Heparinase III digestion of Heparan Sulfate (200 μg) is assessed in a 5-minute kinetic assay at room temperature by monitoring absorbance at 232 nm.