

## Product Data Sheet

Product Name: heparin cofactor II precursor fragment [Homo sapiens]

Cat. No.: GP10027

### Chemical Properties

Cas. No.

Formula  $C_{65}H_{99}N_{17}O_{18}$

M.Wt 1406.58

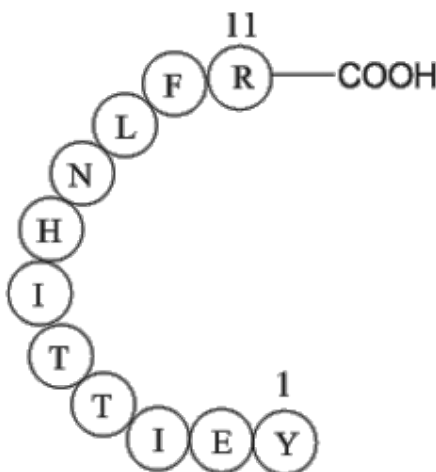
Solubility  $\geq 140.7\text{mg/mL}$  in DMSO

Storage Store at  $-20^{\circ}\text{C}$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}\text{C}$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



### Background

heparin cofactor II precursor fragment [Homo sapiens], ( $C_{65}H_{99}N_{17}O_{18}$ ), a peptide with the sequence  $\text{H}_2\text{N-Tyr-Glu-Ile-Thr-Thr-Ile-His-Asn-Leu-Phe-Arg-OH}$ , MW=1406.58. Heparin cofactor II (HCII), a protein encoded by the SERPIND1 gene, is a coagulation factor that inhibits IIa, and is a cofactor for heparin and dermatan sulfate<sup>1</sup>. The product encoded by this gene is a serine proteinase inhibitor which rapidly inhibits thrombin in the presence of dermatan sulfate or heparin. The gene contains five exons and four introns. This protein shares homology with antithrombin III and other members of the alpha 1-antitrypsin superfamily. Mutations in this gene are associated with heparin

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

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cofactor II deficiency<sup>2</sup>. Heparin Cofactor II deficiency can lead to increased thrombin generation and a hypercoagulable state.

### References:

1. Pizzo SV (1989). "Serpine receptor 1: a hepatic receptor that mediates the clearance of antithrombin III-proteinase complexes.". *Am. J. Med.* 87 (3B): 10S-14S.
2. Sutherland JS, Bhakta V, Fillion ML, Sheffield WP (2006). "The transferable tail: fusion of the N-terminal acidic extension of heparin cofactor II to alpha1-proteinase inhibitor M358R specifically increases the rate of thrombin inhibition.". *Biochemistry* 45 (38): 11444-52.

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