Recombinant Hirudin

Expressed in *Pichia. Pastoris*
Cat. No. Hirudin-02
Lot. No. (See product label)

PRODUCT INFORMATION

Description: Hirudin is a potent thrombin inhibitor originally derived from the medicinal leech Unlike heparin, hirudin act directly on thrombin, rather than through other clotting factors. They have a high binding affinity and specificity for thrombin. The mechanism of hirudin-thrombin binding appears to be unique. Recombinant hirudin variant is derived from yeast cell, the polypeptide containing 65 amino acid residues has a molecular weight of 6979.5 Da, which is identical to natural hirudin except for substitution of leucine for isoleucine at the N-terminal end of the molecule and the absence of a sulfate group on the tyrosine at position 63.

M. W. : 6979.5 Da

Amino-Acid Sequence: 65aa. non-glycosylated

CAS Number: 8001-27-2

Recombinant: Expressed in *Pichia. Pastoris*

Purity: >96% by SDS-PAGE and HPLC analyses.

Specific Activity: rHirudin is fully biologically active when compared to standard. Its specific activity is ≥1×10^4ATU/mg.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Production: Yeast expression of a DNA sequence encoding the mature hirudin variant (Leu1,Thr2-63-desulfo hirudin).

Endotoxin: Less than 10EU/mg of rhirudin as determined by LAL method.

Formulation: Lyophilized from a 0.2μm filtered solution of 20mM PBS, pH 7.0, containing 2% mannitol.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C. Avoid repeated freeze/thaw cycles.

REFERENCES

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2.Haruyama H. and Wuthrich K. (1989). Conformation of recombinant desulfatohirudin in aqueous solution determined by nuclear magnetic resonance. Biochemistry 28 (10): 4301–4312.

3.Rydell TJ, Tulinsky A. et al. (1991). Refined structure of the Hirudin-Thrombin complex. J. Mol. Biol. 221 (2): 583–601.

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