

# r-Hirudin EC

**Description:** Hirudin is the most potent and specific thrombin inhibitor known. It forms a stable equimolar complex with thrombin. The complete structure of hirudin has been elucidated [Dodt et al., 1984] and a gene coding for hirudin was subsequently synthesized and expressed in yeast [Meyhack et al., 1987] and other micro-organisms.

The amino acid sequence of recombinant hirudin (r-Hirudin, [Leu1, Thr2]-63-desulfatohirudin) corresponds to natural hirudin except for the 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.

**Application:** r-Hirudin can be utilised for many analytical and preparative purposes in hemostaseological test procedures as well as in blood and plasma fractionation to block the multiple enzymatic and non-enzymatic actions of thrombin. r-Hirudin may be added to test mixtures to exclude undesired thrombin actions due to contaminations of reagents with prothrombin or with prothrombin activators.

**Formula:**  $C_{287}H_{440}N_{80}O_{110}S_6$  **MW:** 6979.5

**Storage:** May be used by the expiry date given on the label when stored unopened, protected from moisture, in the dark, 2° - 8°C. Avoid contamination of the reagents by micro-organisms. Shipment of product does not require cooling during the time of transportation.

packaging size                      2'000 ATU/vial                      store at 2°– 8°C

**Note:** r-Hirudin is to be used for *in vitro* diagnostic purposes only.

**References:** Dodt J, Müller HP, Seemüller U, Chang JY.  
The complete amino acid sequence of hirudin, a thrombin specific inhibitor, application of colour Carboxymethylation.  
FEBS Lett 1984; 165: 180-4.

Meyhack B, Heim J, Rink H, Zimmermann W, Maerki W.  
Desulfatohirudin, a specific thrombin inhibitor: expression and secretion in yeast.  
Thromb Res 1987; Suppl. 7: 33

Svendsen L, Brogli M, Lindeberg G, Stocker K.  
Differentiation of thrombin- and factor Xa-related amidolytic activity in plasma by means of a synthetic thrombin inhibitor.  
Thromb Res 1984; 34: 457-62.

Stocker K.  
Laboratory use of Hirudin.  
Seminars in Thromb and Hemostasis 1991; 17: 113-121

Stocker K.  
Hirudin for diagnostic purposes.  
Haemostasis 1991; 21 (suppl1): 161-167

**Package size:** Vial containing 2'000 ATU **Code:** 126-10

FOR RESEARCH USE ONLY. NOT FOR HUMAN USE OR DRUG USE.