

r-Hirudin Pentapharm

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].
r-Hirudin amino acid sequence corresponds to natural hirudin of the variant HV-I except for tyrosine 63 which lacks the sulphate group.

Application: Hirudin can be utilised for many analytical and preparative purposes in hemostaseological test procedures as well as in blood and plasma fractionation to prevent the multiple enzymatic and non-enzymatic actions of thrombin. Hirudin may be added to test mixtures to exclude undesired thrombin actions due to contaminations of reagents with prothrombin or with prothrombin activators. Hirudin is used to selectively inhibit thrombin in certain assay conditions when cross-reactivity of thrombin and the chosen enzyme should lead to cleavage of the chromogenic substrate.

Formula: $C_{287}H_{440}N_{80}O_{110}S_6$ **MW:** 6963.5

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.
Vial 2'000 ATU/vial 2°-8°C
Bulk 10'000 ATU/mg -20°C

Note: r-Hirudin Pentapharm may 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

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

Package size: Vial containing 2'000 ATU **Code:** 126-05
Bulk >10'000 ATU/mg 126-07

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