



Product Datasheet

Product Name Bivalirudin

Cata No CB500978

Source

Synonyms

Description

Bivalirudin directly inhibits thrombin by specifically binding as well to the catalytic site and to the anion-binding exosite of circulating and clot-bound thrombin. Bivalirudin is a specific and reversible direct thrombin inhibitor.

Thrombin, which is a serine protease, plays a central role in the thrombotic process; it cleaves fibrinogen into fibrin monomers and activates Factor XIII to Factor XIIIa, allowing fibrin to develop a covalently cross-linked structure which stabilizes the thrombus. Thrombin also activates Factors V and VIII, which promotes further thrombin generation, activates platelets, stimulating aggregation and granule release.

The active of Bivalirudin substance is a synthetic 20 amino acid peptide. The amino acid sequence is Phe-Pro-Arg-Pro-Gly-Gly-Gly-Gly-Asp-Gly-Asp-Phe-Glu-Glu-Ile- Pro-Glu-Glu-Tyr-Leu. The Mw is 2180 dalton.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Purity

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Formulation

The protein (1mg/ml) was lyophilized with 0.5mg Mannitol and sodium hydroxide 50µg pH-5.5.

Reconstitution

It is recommended to reconstitute the lyophilized Bivalirudin in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Bivalirudin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Bivalirudin should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

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