
Direct Factor XIIIa-blockers as safe anticoagulants

Structure of active Factor XIII (FXIIIa) published in Angewandte Chemie

Direct acting Factor XIIIa-blockers may provide a novel and safe option to prevent thrombotic events. Such inhibitors would not impair the thrombin level or the platelet activation but effectively reduce the mechanical stability and half-life of clots accelerating fibrinolysis.

Accordingly, FXIIIa has been discussed for decades as ideal target to adjust coagulation. Until today no suitable drug candidates are available to explore the pharmacological potential. One reason is the fact that the structure representing the active state was unknown.

In cooperation with the group of Prof. Gerhard Klebe in Marburg, Zedira scientists report the first high-resolution crystal structure of FXIIIa in complex with our peptidic lead ZED1301. The proprietary structure is of tremendous value for structure based design of next generation anticoagulants.

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Structure of Active Coagulation Factor XIII Triggered by Calcium Binding: Basis for the Design of Next-Generation Anticoagulants

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