Ecarin
Product No. ADG525

Description
Ecarin is a metalloprotease isolated from the venom of the saw-scaled viper (Echis carinatus) that activates prothrombin. Ecarin does not affect other clotting factors. The action of ecarin on prothrombin is independent of calcium, phospholipids and factor V. Moreover, Ecarin, in contrast to factor Xa, activates the acarboxy form of prothrombin present in plasma of patients undergoing oral anticoagulant therapy with vitamin K antagonists. The venom has a molecular weight of 55,000 - 60,000 D.

Applications
Determination of prothrombin levels in patients undergoing anticoagulant therapy. Based on the interaction of hirudin with meizothrombin a simple ecarin clotting test for the monitoring of hirudin levels has been developed (1). Due to its action on acarboxy prothrombin, ecarin can be used for the determination of acarboxy prothrombin in the supernatent of barium sulfate treated patient plasma where normal carboxylated prothrombin has been removed by adsorption. Ecarin can be used for the detection of low prothrombin concentrations in plasma fractions for quality- and in-process control purposes. Ecarin, used in conjunction with the phospholipid- and calcium ion-dependent prothrombin activator Textarin® from Pseudonaja textilis venom, forms a highly sensitive and specific test system for lupus anticoagulant (2).

Presentation
1 vial containing 50 U/vial.

Reconstitution
Reconstitute vial with 0.2 M HEPES buffer containing 0.025 M calcium chloride. Recommended final ecarin concentration is 4 - 8 U/ml.

Storage and Stability
The unopened lyophilized vial can be stored protected from moisture at 2°-8°C until the expiration date given on the vial. Avoid contamination of the reagents by microorganisms. Shipment of product does not require cooling during the time of transportation.

After reconstitution the product is stable for 7 days when stored at 2°-8°C, and for 6 month when stored at -20 °C.

References