HAEMOCOAGULASE

Description:

Haemocoagulase is isolated from snake venom of Bothrops atrox. It contains two different enzymes acting on blood coagulation; one has a thrombin like effect, the other has a thromboplastin like activity. In vitro, Haemocoagulase causes coagulation of fibrinogen by gradually splitting off fibrinopeptide A, giving rise to des-A-fibrin monomers, which polymerise end-to-end to fibrin. In the presence of platelet factor 3 Haemocoagulase activates factor X. In vivo, therapeutic doses of Haemocoagulase will not initiate intravasal coagulation. The des-A-fibrin monomer produced by Haemocoagulase remains in solution because it forms a complex with native fibrinogen. Haemocoagulase accordingly promotes and accelerates the physiological processes of haemostasis. Haemocoagulase shortens the bleeding and coagulation time.

Application:

Haemocoagulase is indicated in all fields of medicine, i.e. gynaecology, urology, gastro-enterology, dentistry for the prevention and treatment of haemorrhages of various origins, including cases where surgical treatment is required.

MW:36,000 and 43,000 Daltons

Unit Definition:

One NIH Thrombin unit is the quantity of Haemocoagulase required for clotting 0.4 ml of standard bovine plasma in 60 ± 20 seconds at 37° C.

Available form:

Sterile liquid concentrate.

Stability and Storage:

Stable for 3 years at 2-8°C in sealed tamper proof containers.

Reference:

1. Merck Index, 12th Ed., S. Budavari, Ed., # 796, p. 128 (1996).
2. J. Gen. Physiol., 19, 991 (1936).
3. Hoppe-Seyler's Z. Physiol. Chem., 192, 1 (1930).
4. Drug Res., 33(1), No. 4, 479 (1983).