

Factor X Activated (Xa) from bovine plasma

Description:

Factor Xa is a serine endopeptidase composed of two disulfide-linked subunits that converts prothrombin to thrombin in the blood coagulation cascade. Factor Xa cleaves after the arginine residue in its preferred cleavage site Ile-(Glu or Asp)-Gly-Arg and it will occasionally cleave at other basic residues. However, it will not cleave at a site followed by proline or arginine.

Application:

Fusion proteins are commonly expressed with a factor Xa cleavable Ile-Glu (or Asp)-Gly-Arg-↓-X sequence. Used as a cleavage reagent to remove GST tags from recombinant proteins. Factor Xa plays a critical role in the coagulation cascade by catalyzing the proteolytic conversion of prothrombin to active thrombin. Factor Xa catalyzes the hydrolysis of the Arg-Thr and then Arg-Ile bonds in prothrombin to yield active thrombin. Factor X deficiency results in prolonged prothrombin and partial thromboplastin times.

MW: 43,000 Daltons.

Activity: > 125 units/mg.

Storage and form: -20 °C (Lyophilized powder).

Package size: Bulk .

Reference:

1. Jesty, J. and Nemerson, Y. (1976) The activation of bovine coagulation factor X. *Methods Enzymol.* 45, 95-107.
2. Nagai, K. and Thøgersen, H. (1984) *Nature* 309, 810-812.
3. Aurell, L., et al. (1984) *Thrombosis Res.* 11, 595-609.