Creative Enzymes®

Native Bovine Factor X Activated (Xa)

Cat. No. NATE-0250

Lot. No. (See product label)

Introduction

Description	Factor Xa catalyzes the hydrolysis of the Arg-Thr and then Arg-Ile bonds in prothrombin to yield active thrombin. The fairly strict recognition sequence is Ile-Glu (or Asp)-Gly-Arg-↓-X. It may sometimes cleave at other basic residues, depending on the conformation of the target protein. Factor Xa will not cleave if a proline residue follows the arginine of the recognition sequence.
Applications	Fusion proteins are commonly expressed with a factor Xa cleavable Ile-Glu (or Asp)-Gly-Arg-↓-X sequence. Typically 1 mg of fusion protein can be incubated with 10 µg of factor Xa for 2.5 hours at 37 oc.
Synonyms	EC 3.4.21.6; 9002-05-5; thrombokinase; prothrombase; prothrombinase; activated blood-coagulation factor X; autoprothrombin C; thromboplastin; plasma thromboplastin; factor Xa; activated Stuart-Prower factor; activated factor X; coagulation factor Xa

Product Information

Species	Bovine
Source	Bovine plasma
Form	aqueous glycerol solution
EC Number	EC 3.4.21.6
CAS No.	9002-05-5
Optimum pH	7.6-8.0
Optimum temperature	37°C
Pathway	Common Pathway, organism-specific biosystem; Complement and Coagulation Cascades, organism-specific biosystem; Extrinsic Pathway, organism-specific biosystem
Function	calcium ion binding; phospholipid binding; serine-type endopeptidase activity
Unit Definition	One unit of activated Factor X will liberate 1.0 µmole of p-nitroanilide from N-benzoyl-L-isoleucyl-L-glutamyl-L-glycyl-L-arginine-p-nitroaniline per minute at pH 8.3 at 37°C.

Storage and Shipping Information

Storage	−20°C