Active Native Bovine Factor Va

Cat. No. Fva-285B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	
Species	Bovine
Source	Plasma
Description	Factor Va is a cofactor for the serine protease factor Xa, and in the presence of calcium ions they collectively assemble on a phospholipid surface to form the prothrombinase complex. The prothrombinase complex is responsible for the rapid conversion of prothrombin to thrombin. Factor Va is derived from the pro-cofactor, factor V, upon limited proteolysis by alpha-thrombin. The thrombin cleavage of factor V liberates two heavily glycosylated activation peptides from the central portion of the molecule which have no cofactor function. Factor Va is comprised of an NH2-terminal derived heavy chain (Mr=94,000) and a COOH-terminal derived light chain (Mr=74,000) which remain associated in the presence of calcium ions. The cofactor binds to phospholipid (cell membrane) surfaces and effectively serves as a receptor for membrane bound factor Xa. Complete assembly of the prothrombinase complex (factor Xa, factor Va, phospholipid, and calcium) results in a 300,000-fold increase in the rate of prothrombin conversion relative to the rate observed with factor Xa alone. The interaction between factor Va and factor Xa is mediated by both the heavy and light chain of factor Va, while the binding of prothrombin to factor Va is mediated solely by the heavy chain.
Form	50% (vol/vol) glycerol/5 mM CaCl2

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Bio-activity	Clotting assay
Molecular Mass	168000
Purity	>95% by SDS-PAGE. NOT tissue/cell culture grade. Not tested for endotoxin.
Characteristic	Extinction coefficient:17.4, Percent carbohydrate:approximately 8%, Structure: two subunits, Mr~94,000 (heavy chain) and 74,000 (light chain)
Storage	-20°C

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA