Creative Enzymes®

Native Human Protein C

Cat. No. NATE-0626

Lot. No. (See product label)

Introduction

Description	Protein C is a plasma, vitamin κ-dependent zymogen of a serine protease that can inhibit blood coagulation by inhibiting thrombin formation, selectively inactivating Factors Va and VIIIa. The Protein C anticoagulant pathway is triggered when thrombin binds to the endothelial cell proteoglycan, thrombomodulin. This complex, which cannot clot blood, is a potent activator of the protein C zymogen. Activation involves the release of a dodecapeptide from the N-terminal domain of the heavy chain. The activated Protein C (APC) then binds to protein S on cell surfaces and inactivates the coagulation factors Va and VIIIa by proteolysis. APC has also been shown to bind to receptors on the endothelium of large blood vessels.
Synonyms	PROC; protein C; blood-coagulation factor XIVa; activated blood coagulation factor XIV; activated protein C; autoprothrombin II-A; protein Ca; APC; GSAPC; 42617-41-4; EC 3.4.21.69; PROC1

Product Information

Species	Human
Source	Human plasma
Form	Lyophilized powder from 20 mM Tris-HCl, pH 7.4, containing 0.1 M NaCl
EC Number	EC 3.4.21.69
CAS No.	42617-41-4
Molecular Weight	heavy chain mol wt 41 kDa; light chain mol wt 21 kDa
Purity	> 90% (SDS-PAGE)
Buffer	H2O: soluble 1 mg/mL
Pathway	Cell surface interactions at the vascular wall, organism-specific biosystem; Common Pathway, organism-specific biosystem; Complement and Coagulation Cascades, organism-specific biosystem; Complement and coagulation cascades, organism-specific biosystem; Complement and coagulation cascades, conserved biosystem; Formation of Fibrin Clot (Clotting Cascade), organism-specific biosystem; Gamma-carboxylation of protein precursors, organism-specific biosystem
Function	calcium ion binding; peptidase activity; protein binding; serine-type endopeptidase activity

Storage and Shipping Information

Storage	−20°C