

## Native Human Protein C

Cat. No. NATE-0626

Lot. No. (See product label)

### Introduction

**Description** Protein C is a plasma, vitamin K-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; autoproteolytic 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** H<sub>2</sub>O: 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