

## Active Native Bovine Activated Protein C

Cat. No. PROC-272B Lot. No. (See product label)

### SPECIFICATION

<b>Species</b>	Bovine
<b>Source</b>	Plasma
<b>ProteinLength</b>	1-456 aa
<b>Description</b>	<p>Activated protein C (APC) is an anticoagulant serine protease derived from the two chain, vitamin K-dependent zymogen, protein C. A complex between alpha-thrombin and thrombomodulin catalyzes a single cleavage at Arg-12 (Arg-14 in bovine) in the heavy chain of protein C, to generate activated Protein C. Several non-physiologically relevant proteases such as RVV-X activator, trypsin, and PROTAC are also capable of activating protein C. APC functions as an anticoagulant which catalyzes the proteolytic inactivation of the cofactors, factors Va and VIIIa, leading to inhibition of the prothrombinase and factor Xase complexes. The inactivation of factors Va and VIIIa is both Ca<sup>2+</sup> and phospholipid dependent. The vitamin K dependent cofactor, protein S, moderately increases this rate of inactivation by forming a 1:1 complex with APC (K<sub>d</sub>=6x10<sup>-9</sup>M).</p>
<b>Form</b>	50% (vol/vol) glycerol/H <sub>2</sub> O
<b>Bio-activity</b>	Chromogenic assay
<b>Molecular Mass</b>	52650
<b>Purity</b>	>95% by SDS-PAGE. NOT tissue/cell culture grade. Not tested for endotoxin.

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<b>Characteristic</b>	Extinction coefficient:13.7, Isoelectric point:4.2-4.5, Percent carbohydrate:0.14, Structure:two chains, Mr=35,000 and 21,000, disulfide linked, NH2-terminal gla domain two EGF domains
<b>Storage</b>	-20°C
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	PROC protein C (inactivator of coagulation factors Va and VIIIa) [ Bos taurus ]
<b>Official Symbol</b>	PROC
<b>Synonyms</b>	vitamin K-dependent protein C; autoprothrombin IIA; anticoagulant protein C; blood coagulation factor XIV
<b>Gene ID</b>	281428
<b>mRNA Refseq</b>	NM_001166512
<b>Protein Refseq</b>	NP_001159984
<b>Chromosome Location</b>	2q12
<b>Pathway</b>	Cell surface interactions at the vascular wall, organism-specific biosystem; Complement and Coagulation Cascades, organism-specific biosystem; Complement and coagulation cascades, conserved biosystem
<b>Function</b>	calcium ion binding; serine-type endopeptidase activity

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