



Goat anti-human Protein C Inhibitor (PCI)

Affinity-Purified IgG

0.5 mg

Product #: GAPCI-AP

Lot #: XXXX

Expiry date: XXXX

Store at -10 to -20°C

For Research Use Only.

Not for use in diagnostic procedures.

Description of Protein C Inhibitor (PCI)

Protein C Inhibitor (PCI), also known as Plasminogen Activator Inhibitor 3 (PAI3), is a member of the SERPIN family of proteinase inhibitors. It is produced in the liver as a single chain glycoprotein (mass of 57 kDa) and circulates in plasma at a concentration of 5 µg/ml (~90 nM). PCI is also found in urine in lower concentrations of 250 ng/mL (~0.4 nM).

PCI is the primary inhibitor of activated Protein C (APC) in plasma but demonstrates a relatively broad specificity, also inhibiting thrombin, FXa, FXIa, kallikrein, tPA, urokinase, prostate specific antigen, acrosin, chymotrypsin and trypsin. The preferred enzyme target for PCI appears to be thrombin and this interaction is increased by more than 100 fold in the presence of thrombomodulin. Like ATIII and HCII, the inhibitory activity of PCI towards some of these enzymes is stimulated by high concentrations of heparin (5 U/ml) which can accelerate the rate of inactivation as much as 50 fold. Enzyme inhibition by PCI occurs through proteolytic cleavage at Arg³⁵⁴-Ser³⁵⁵ and subsequent rapid formation of a stable, inactive 1:1 enzyme-PCI complex. Interaction with APC results in an SDS-stable APC-PCI complex of 102 kDa¹⁻⁴

References and Reviews

1. Suzuki K; Protein C Inhibitor; Methods in Enzymology 222, pp 385-399, 1993.
2. Cooper ST, Whinna HC, Jackson TP, Boyd JM, Church FC; Intermolecular Interactions between Protein C Inhibitor and Coagulation Proteases; Biochemistry: 34, pp. 12991-12997, 1995.
3. Heeb MJ, Espana F, Geiger M, Collen D, Stump DC, Griffin JH; Immunological Identity of Heparin-dependent Plasma & Urinary Protein C Inhibitor & Plasminogen Activator Inhibitor-3; JBC:262, pp 15813-15816, 1987.
4. Rezaie AR, Copper ST, Church FC, Esmon CT; Protein C Inhibitor is a Potent Inhibitor of the Thrombin-Thrombomodulin Complex; JBC:270, pp 25336-25339, 1995.

Product Specifications

Description:

Vial containing XXXX ml of IgG purified by affinity-chromatography on immobilized PCI. Total protein is 0.5 mg.

Format:

Affinity-purified IgG (APIgG), clear liquid.

Host Animal:

Goat

Immunogen:

Human Protein C Inhibitor purified from plasma.

Concentration:

APIgG concentration is XXXX mg/ml, determined by absorbance using an extinction coefficient ($E^{1\%_{280}}$) of 13.4.

Buffer:

10 mM HEPES, pH 7.4, 150 mM NaCl, 50% (v/v) glycerol.

Storage:

Store between -10 and -20°C. Product will become viscous but will not freeze. Avoid storage in frost-free freezers. Keep vial tightly capped. Allow product to warm to room temperature and gently mix before use.

Specificity:

This antibody is specific for Protein C Inhibitor as demonstrated by immunoelectrophoresis and ELISA.

Applications:

Suitable as a source of enriched antibodies to human Protein C Inhibitor.

Neutralizing activity:

Not determined.

Species Cross Reactivity:(immunodiffusion vs. citrated plasma)

Human:	XXXX	Mouse:	XXXX	Rat:	XXXX
Rabbit:	XXXX	Pig:	XXXX	Dog:	XXXX