

Anti-Protein C [HPC-4] Standard Size Ab01200-23.0

This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Rabbit IgG, Kappa

Clone Number: HPC-4

Alternative Name(s) of Target: Autoprothrombin IIA; HPC4; Vitamin K-dependent protein C; Anticoagulant protein C; Blood coagulation factor XIV; PROC

UniProt Accession Number of Target Protein: P04070

Published Application(s): Blocking, Purification, ELISA

Published Species Reactivity: Baboons, Human

Immunogen: This antibody was raised by immunising mice with human protein C.

Specificity: Specifically binds to a specific twelve peptide sequence (EDQVDPRLIDGK) in the activation region of the Protein C (spanning the thrombin cleavage site). Does not react with activated protein C. Has been shown to be cross-reactive with baboon Protein C but not with bovine or mouse Protein C.

Application Notes: HPC-4 binds human protein C only in the presence of Ca^{2+} ; it binds to the reduced carboxymethylated protein C heavy chain, and it blocks protein C activation but does not bind or inactivate protein C or activated protein C bound to its plasma inhibitor. Furthermore, it is an anti-epitope tag antibody, as it recognizes the EDQVDPRLIDGK sequence (Taylor Jr et al., 1987; PMID: 3102560). It has been shown to work in ELISAs to determine expression levels (Velandar et al., 1992; PMID: 1465430). HPC-4 has been shown to be effective at purifying proteins tagged with its epitope (Rezaie et al., 1992; PMID: 1283093). It has also been used to block the activation of Protein C by the thrombin-thrombomodulin complex (Stearns et al., 1988; PMID: 2447082) and was used for the same purpose in Baboons to lower the threshold of sepsis (Taylor Jr et al., 1987; PMID: 3102560). HPC-4 has been used in many other studies to observe the function of Protein C by knocking out its function in a Ca^{2+} -dependent manner, purification, and others (Tanaka et al., 2006; PMID: 16398653) (Bae et al., 2007; PMID: 17823308).

Antibody First Published in: Taylor et al. Protein C prevents the coagulopathic and lethal effects of Escherichia coli infusion in the baboon. J Clin Invest. 1987 Mar;79(3):918-25. [PMID:3102560](#)

Note on publication: Describes the generation and characterisation of the HPC-4 antibody.

Product Form

Size:

200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.