



Murine Anti-Protein C

Clone GMA-054

Thrombin, in the presence of thrombomodulin, cleaves protein C giving the active protease activated protein C (APC). APC plays a regulatory role in coagulation by functioning as an anticoagulant by proteolytic inactivation of Factors V (Va) and VIII (VIIIa). Protein C (Mr 62,000) consists of a heavy chain (Mr 41,000) disulfide bonded to a Gla-containing light chain (Mr 21,000) which contains two EGF domains. GMA-054 is calcium dependent, and recognizes the activation region of Protein C. It can be used in western blot and ELISA applications. GMA-054 does not recognize activated Protein C and inhibits activation of Protein C by thrombin-thrombomodulin.

Description

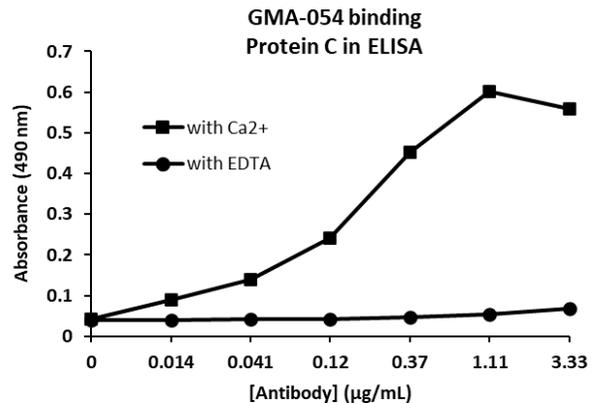
Antibody Source:	mouse monoclonal, IgG ₁
Antigen Species Bound:	human, pig, baboon, canine Protein C ¹
Specificity:	twelve peptide sequence (EDQVDPRLIDGK) in the activation region of Protein C ¹
Immunogen:	human protein C

Formulation and Storage

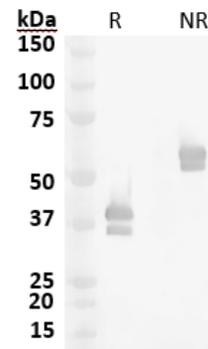
Purity:	Purified by protein G affinity chromatography from serum-free cell culture supernatant.
Product Formulation:	Lyophilized from a ≥1 mg/ml solution in 20 mM NaH ₂ PO ₄ 0.15 M NaCl, 1.0% (w/v) mannitol, pH 7.4. Concentration determined by absorbance measurement at 280 nm and using an extinction coefficient of 1.4 (ε _{0.1%}).
Reconstitution:	Reconstitute with deionized water.
Storage:	Store lyophilized or reconstituted and aliquoted material at -20°C for prolonged periods. Avoid freeze-thaw cycles. Alternatively, add 0.02% (w/v) sodium azide to reconstituted solution and store at 4°C.
Country of Origin:	USA
Size Options:	0.1 mg or 0.5 mg

Applications

Working Concentration:	Approximately 1-5 µg/ml. Researcher should titer antibody in specific assay.
ELISA:	Binds immobilized human protein C only in the presence of calcium.
Immunoblotting:	Binds protein C under reduced and non-reduced conditions.
Inhibition:	Inhibits activation of protein C.



Western blot of protein C, 1 µg/mL GMA-054 with 20 mM Ca²⁺



References

[1] Esmon, C. (1993). *Monoclonal Antibody Specific for Protein C and Antibody Purification Method* (U.S. Patent No. 5,202,253). U.S. Patent and Trademark Office.