

## 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

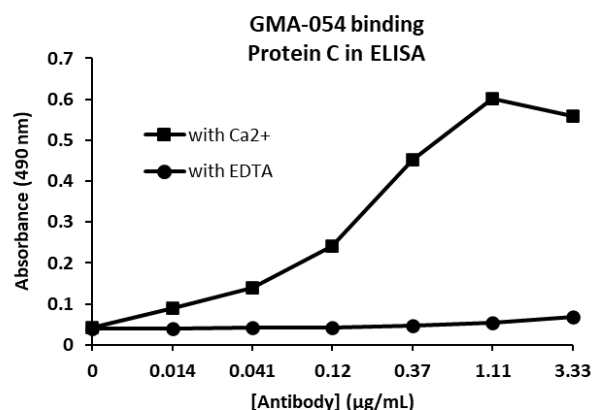
|                               |   |
|-------------------------------|---|
| <b>Antibody Source:</b>       | mouse monoclonal, IgG <sub>1</sub>  |
| <b>Antigen Species Bound:</b> | human, pig, baboon, canine Protein C <sup>1</sup>   |
| <b>Specificity:</b>           | twelve peptide sequence (EDQVDPRLIDGK) in the activation region of Protein C <sup>1</sup> |
| <b>Immunogen:</b>             | human protein C   |

### Formulation and Storage

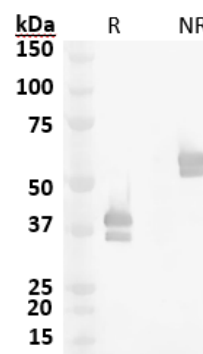
|                             |  |
|-----------------------------|--|
| <b>Purity:</b>              | Purified by protein G affinity chromatography from serum-free cell culture supernatant.  |
| <b>Product Formulation:</b> | Lyophilized from a $\geq 1$ mg/ml solution in 20 mM NaH <sub>2</sub> PO <sub>4</sub> 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 ( $\epsilon_{0.1\%}$ ). |
| <b>Reconstitution:</b>      | Reconstitute with deionized water.   |
| <b>Storage:</b>             | 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.  |
| <b>Country of Origin:</b>   | USA  |
| <b>Size Options:</b>        | 0.1 mg or 0.5 mg   |

### Applications

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



**Western blot of protein C,  
1  $\mu$ g/mL GMA-054  
with 20 mM Ca<sup>2+</sup>**



### 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.