Murine Anti-Factor V

Clone GMA-5017

Factor V (FV) circulates in blood as a single chain protein (M_r 330,000). Following proteolytic activation by thrombin, activated factor V (FVa) serves as the cofactor for factor Xa in the prothrombinase complex that cleaves prothrombin to thrombin in the presence of phospholipid and Ca^{2+}. Factor Va is composed of a heavy chain (M_r 94,000) non-covalently associated to a light chain (M_r 74,000). GMA-5017 recognizes the heavy chain of FVa and is suitable for ELISA and Western blot applications.

Description

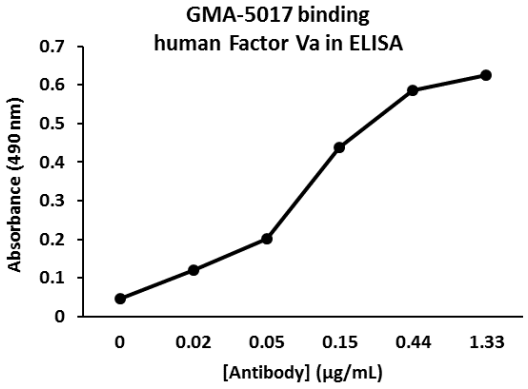
Antibody Source:	mouse monoclonal, IgG_{2a}
Antigen Species Bound:	human
Specificity:	Factor V/Va heavy chain, residues 307-506[1]
Immunogen:	human FV

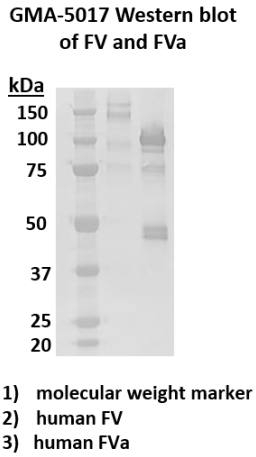
Formulation and Storage

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_2PO_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 ($\varepsilon_{0.1\%}$).
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 FV and FVa.
Immunoblotting:	Western blot detects FV/FVa heavy chain.





References

[1] R.M. Camire, M. Kalafatis, P.B. Tracy. Proteolysis of factor V by cathepsin G and elastase indicates that cleavage at Arg^{1545} optimizes cofactor function by facilitating factor Xa binding. (1998). *Biochemistry.* 37(34):11896-906.

[2] R.M. Camire, M. Kalafatis, P. Simioni, A. Girolami, P.B. Tracy. Platelet-derived Factor Va/Va^{Leiden} cofactor activities are sustained on the surface of activated platelets despite the presence of activated protein C. (1998). *Blood.* 91(8):2818-29.