

Murine Anti-Factor VIII

Clone GMA-8041

Factor VIII (FVIII) is a heterodimer consisting of a heavy chain (ranging in mass from 90 to 200 kDa) bound via metal ions to a light chain (80 kDa). In plasma, FVIII circulates in an inactive form bound to von Willebrand factor. Following activation by factor Xa or thrombin, factor VIIIa can function as cofactor for the enzyme factor IXa in the activation of factor X in the presence of phospholipid and Ca²⁺. Absent or defective FVIII is the cause of the X-linked recessive bleeding disorder hemophilia A. GMA-8041 is suitable for ELISA and Western blot applications.

Description

Antibody Source: mouse monoclonal, IgG₁

Antigen Species Bound: human

Specificity: FVIII light chain

Immunogen: recombinant human FVIII light chain (residue numbers 1689-2332)

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 NaH₂PO₄ 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

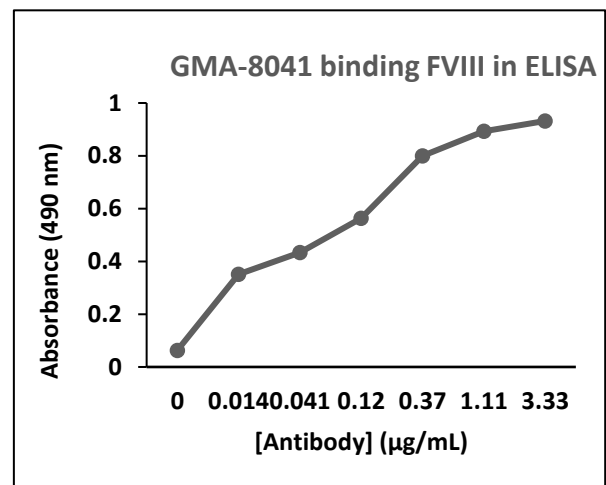
Size Options: 0.1 mg or 0.5 mg

Applications

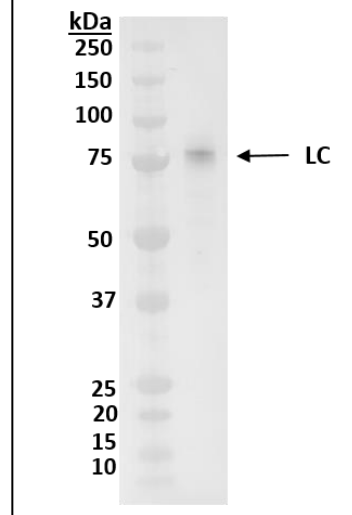
Working Concentration: Approximately 1-5 µg/ml. Researcher should titer antibody in specific assay.

ELISA: Binds immobilized human FVIII.

Immunoblotting: Western blot detects light chain of human FVIII.



GMA-8041 Western blot of FVIII digested by IIa



References

[1] M. Elnaggar, A. Al-Mohannadi, D. Kizhakayil, C. M. Raynaud, S. Al-Mannai, G. Gentilcore, I. Pavlovski, A. Sathappan, N. Van Panhuys, C. Borsotti, A. Follenzi, J-C. Grivel, S. Deola. Flow-Cytometry Platform for Intracellular Detection of FVIII in Blood Cells: A New Tool to Assess Gene Therapy Efficiency for Hemophilia A. (2020). *Molecular Therapy: Methods & Clinical Development*. 17:1-12.