



Murine Anti-Factor VIII

Clone GMA-8020

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-8020 recognizes the A1-A3 domains of FVIII and partially inhibits FVIII activation. It is suitable for ELISA and bio-layer interferometry pairing experiments.

Description

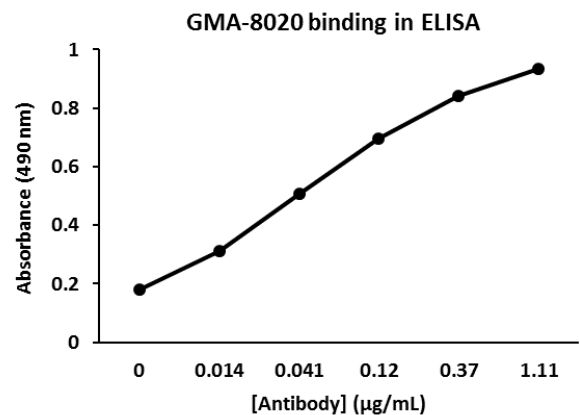
Antibody Source:	mouse monoclonal, IgG _{2a}
Antigen Species Bound:	human
Specificity:	FVIII LC domain
Immunogen:	B-domain deleted recombinant human FVIII

Formulation and Storage

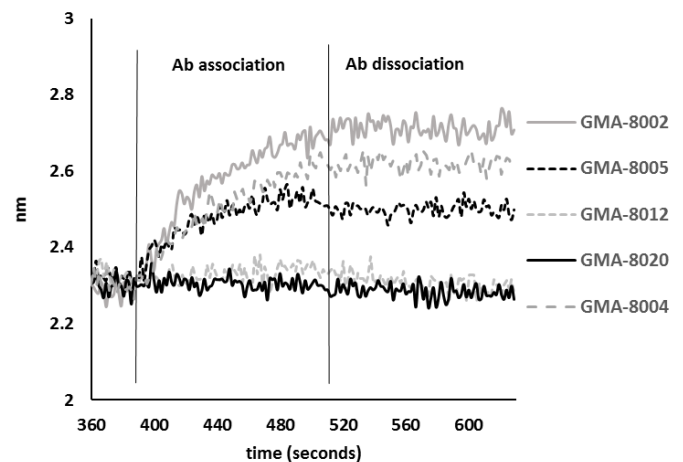
Purity:	Purified by protein G affinity chromatography from serum-free cell culture supernatant.
Product Formulation:	Lyophilized from a ≥1 mg/ml solution in 20 mM NaH ₂ PO ₄ 0.15 M NaCl, 1.0% (w/v) mannitol, pH 7.4. Concentration determined by absorbance measurement at 280 nm and using an extinction 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 FVIII.
Immunoblotting:	Not recommended.
Inhibition:	Inhibitory in aPTT clotting assay.
Bio-layer Interferometry:	Can be used in conjunction with GMA-8001, -8002, -8004, -8005 and -8013 for detection of FVIII.



Antibody binding to FVIII captured by GMA-8020 by Octet



References

[1] C. Chen et al. Treatment of Hemophilia A Using Factor VIII Messenger RNA Lipid Nanoparticles. (2020). *Molecular Therapy: Nucleic Acids.* (20):534-544.