



Murine Anti-Factor VIII

Clone GMA-8021

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 Ca^{2+} . Absent or defective FVIII is the cause of the X-linked recessive bleeding disorder hemophilia A. GMA-8021 (also known as 2-76) recognizes the A2 domain of FVIII, is strongly inhibitory¹, and suitable for ELISA and bio-layer interferometry applications.

Description

Antibody Source:	mouse monoclonal, IgG _{2a}
Antigen Species Bound:	human, rhesus monkey
Specificity:	FVIII A2 domain, epitope within residues 484-508
Immunogen:	B-domain deleted recombinant human FVIII

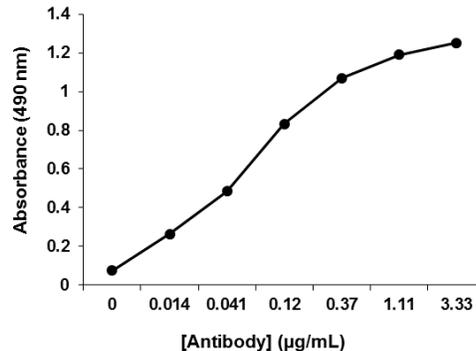
Formulation and Storage

Purity:	IgG 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 ($\epsilon_{0.1\%}$).
Reconstitution:	Reconstitute with deionized water.
Storage:	Aliquot and store at $-20^\circ C$ for prolonged periods. Avoid freeze-thaw cycles. Alternatively, add 0.02% (w/v) sodium azide and store at $4^\circ C$.
Country of origin:	USA
Size Options:	0.1 mg or 0.5 mg

Applications

Working Concentration:	Approximately 1-5 $\mu g/ml$. Researcher should titer antibody in specific assay.
ELISA:	Binds immobilized human and rhesus FVIII.
Immunoblotting:	Does not blot.
Inhibition:	Strongly inhibitory in aPTT clotting assay ¹ .
Affinity Constant (apparent K_D):	$K_D = 2$ nM, ($k_{dis} = 9 \times 10^{-4}$ sec ⁻¹) by bio-layer interferometry.

GMA-8021 binding in ELISA



References

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