



## Enzyme Research Laboratories

1801 Commerce Drive  
South Bend, IN U.S.A. 46628  
(574) 288-2268 \* Fax (574) 288-2272  
Website: [www.enzymeresearch.com](http://www.enzymeresearch.com)  
Email: [info@enzymeresearch.com](mailto:info@enzymeresearch.com)

# Murine Anti-Factor VIII

## Clone 8001

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  $\text{Ca}^{2+}$ . Absent or defective FVIII is the cause of the X-linked recessive bleeding disorder hemophilia A. Mab HFVIII-8001 (also known as 2-113)<sup>1</sup> recognizes the A3 domain of FVIII, is suitable for ELISA and bio-layer interferometry pairing applications.

## Description

**Antibody Source:** mouse monoclonal, IgG<sub>1</sub>

**Antigen Species Bound:** human

**Specificity:** FVIII A3 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  $\geq 1$  mg/ml solution in 20 mM  $\text{NaH}_2\text{PO}_4$  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 ( $\epsilon_{0.1\%}$ ).

**Reconstitution:** Reconstitute with deionized water.

**Storage:** Store lyophilized or reconstituted and aliquoted material at  $-20^\circ\text{C}$  for prolonged periods. Avoid freeze-thaw cycles. Alternatively, add 0.02% (w/v) sodium azide to reconstituted solution and store at  $4^\circ\text{C}$ .

**Country of Origin:** USA

**Size Options:** 0.1 mg or 0.5 mg

## Applications

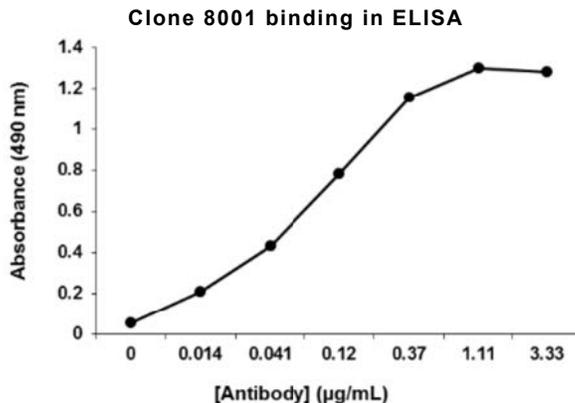
**Working Concentration:** Approximately 1-5  $\mu\text{g}/\text{ml}$ . Researcher should titer antibody in specific assay.

**ELISA:** Binds immobilized human FVIII.

**Immunoblotting:** Not recommended.

**Inhibition:** Moderately inhibitory in aPTT clotting assay.

**Bio-layer Interferometry:** Can be used in conjunction with Clone 8002, 8004, 8005, 8013, and 8020 for detection of FVIII.



## References

- [1] R.J. Summers, S.L. Meeks, J.F. Healey, H.C. Brown, E.T. Parker, C.L. Kempton, C.B. Doering, P. Lollar. Factor VIII A3 domain substitution N1922S results in hemophilia A due to domain-specific misfolding and hyposecretion of functional protein. (2011). *Blood*. 117(11):3190-3198.
- [2] M.A. Zimmermann, J. Oldenburg, C.R. Muller, S. Rost. Expression studies of mutant factor VIII alleles with premature termination codons with regard to inhibitor formation. (2014) *Haemophilia*. 20(3): e215-e221.