Datasheet: MCA4682G

Description:	MOUSE ANTI HUMAN VON WILLEBRAND FACTOR
Specificity:	VON WILLEBRAND FACTOR
Other names:	FACTOR VIII RELATED ANTIGEN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	RFF-VIII R/1
Isotype:	IgG1
Quantity:	0.2 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting		▪		
Radioimmunoassays	▪			
Protein Purification	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3)

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Human Factor VIII complex partially purified from Factor VIII concentrate.
External Database Links	**UniProt:** P04275 Related reagents **Entrez Gene:** 7450 VWF Related reagents
Synonyms	F8VWF
RRID	AB_2216570
Specificity	**Mouse anti Human von Willebrand factor antibody, clone RFF-VIII R/1** recognizes human von Willebrand factor (vWF), also known as Factor VIII related antigen, a blood glycoprotein involved in blood coagulation. It stabilises circulating Factor VIII by binding to it and protecting it from cleavage and delivers it to sites of vascular injury. vWF also promotes the adhesion of platelets to sites of vascular damage by forming a molecular bridge between collagen on exposed endothelial cells and the GPIb binding sites of platelets circulating in the blood. vWF circulates in the blood as large multimers, with each monomer (250kDa) containing a number of specific domains. Hereditary or acquired defects in vWF lead to von Willebrand disease (vWD), characterised by varying degrees of susceptibility to bleeding. Symptoms might include nosebleeds, bleeding gums, easy bruising, menorrrhagia or gastrointestinal bleeding. Various forms of vWD exist with differing severities, determined by the type of defect. Mouse anti Human von Willebrand factor, clone RFF-VIII R/1 has a high affinity for an epitope within the platelet GPIb-binding site that is responsible for biological activity. As such the antibody is a potent inhibitor of vWF activity. It can completely neutralise ristocetin-induced platelet aggregation and ristocetin-induced binding of vWF to platelets. It also inhibits platelet adhesion to glass beads. The epitope recognized is present only on the intact multimeric form of vWF and is abolished by mild denaturation with SDS. Mouse anti Human von Willebrand factor, clone RFF-VIII R/1 does not recognize human Factor VIII. Mouse anti Human von Willebrand factor antibody, clone RFF-VIII R/1 may be used as a capture antibody in immunoassays for vWF in combination with clone RFF-VIII R/2 as a detection reagent.
Histology Positive Control Tissue	Human tonsil, thymus, liver, spleen or kidney.

References	1. Goodall, A.H. *et al.* (1985) An immunoradiometric assay for human factor VIII/von Willebrand factor (VIII:vWF) using a monoclonal antibody that defines a functional epitope. Br J Haematol. 59 (4): 565-77. 2. Goodall, A.H. & Meyer, D. (1985) Registry of monoclonal antibodies to factor VIII and von Willebrand factor. International Committee on Thrombosis and Haemostasis. Thromb Haemost. 54 (4): 878-91. 3. Chand, S. *et al.* (1986) A two-site, monoclonal antibody-based immunoassay for von Willebrand factor--demonstration that vWF function resides in a conformational epitope. Thromb Haemost. 55 (3): 318-24. 4. Kraus, E. *et al.* (2014) Platelet-free shear flow assay facilitates analysis of shear-dependent functions of VWF and ADAMTS13. Thromb Res. 2134: 1285-91. 5. Chen, Y.J. *et al.* (2015) Blood-brain barrier KCa3.1 channels: evidence for a role in brain Na uptake and edema in ischemic stroke. Stroke. 46 (1): 237-44. 6. Kölm, R. *et al.* (2016) Von Willebrand Factor Interacts with Surface-Bound C1q and Induces Platelet Rolling. J Immunol. 197 (9): 3669-79. 7. Tejada de Rink, M.M. *et al.* (2020) A Single Injection of *N*-Oleoyldopamine, an Endogenous Agonist for Transient Receptor Potential Vanilloid-1, Induced Brain Hypothermia, but No Neuroprotective Effects in Experimentally Induced Cerebral Ischemia in Rats. Ther Hypothermia Temp Manag. 10 (2): 91-101.
Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA4682G 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP

Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	**Worldwide**	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	**Europe**	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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