CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	JAM-A, Human, clone M.Ab.F11		
Catalog number	HM2099-20UG		
Lot number	-	**Expiry date**	-
Volume	200 µl	**Amount**	20 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA	**Concentration**	100 µg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	<24 EU/mg	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #		6	5,6	4,8	1-3	7	4	1,2,4
Yes		●	●	●	●	●	●	●
No								
N.D.	●							

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FC: Antibody M.Ab. F11 stains the extracellular domain of JAM-A protein name. Cells were incubated with 5µg/ml of mAb in 0.1%BSA/PBS. As negative control an isotype-matched antibody was used (Ref.4)
- W: A non-reduced and reduced sample treatment and SDS-Page was used. The band sizes iare 32 and35kDa (Ref. 1).
- FS: Antibody M.Ab. F11 functions as anagonist resulting in platelet aggregation at concentrations of approximately 5µg/ml (Ref.1).

General Information

Description

The monoclonal antibody M.Ab.F11 recognizes junctional adhesion molecule-A (JAM-A) also known as the human platelet F11-Receptor (F11R) or JAM-1. JAM-A is a surface glycoprotein duplex (32 and 35 kDa) belongingto the immunoglobulin superfamily found on the surface of human platelets and at intercellular junctions of endothelial cells and epithelial cells. JAM-A belongs together with JAM-C (JAM-2) and JAM-B (VE-JAM or JAM-3) to a family of adhesion proteins with a V-C2 immunoglobulin domain organization. JAM-A plays an important role in tight junctions where it is involved in cell-to-cell adhesion through homophilic interactions. It co-distributes with other tight junction components such as ZO-1, 7H6 antigen, cingulin and occludin. Moreover, JAM-A plays a role in platelet aggregation, secretion, adhesion, spreading. In the platelet, JAM-A is a membrane protein involved in 2 distinct processes initiated on the platelet surface. Namely,, antibody-induced platelet aggregation and secretion both dependent on FcgammaRII and GPIIb/IIIa integrin, a process that may be involved in pathophysiological processes associated with certain thrombocytopenias and secondly, antibody mediated platelet adhesion independent from FcgammaRII or fibrinogen receptor that appears to play a role in physiological processes associated with platelet adhesion and aggregation. A physiological role for the JAM-A protein was demonstrated by its phosphorylation after the stimulation of platelets by thrombin and collagen. A pathophysiological role for the JAM-A was revealed by demonstrating the presence of JAM-A antibodies in patients with thrombocytopenia. Adhesion of platelets through JAM-A resulted in events characteristic of the action of cell adhesion molecules. Recent data suggests a role for JAM-A in the adhesion of platelets to cytokine-inflamed endothelial cells and thus in thrombosis and atherosclerosis induced in non-denuded blood vessels by inflammatory processes.

Immunogen

Human platelet membranes

Aliases

Junctional Adhesion Molecule, JAM-1, platelet F11 receptor, F11R, platelet adhesion molecule, CD321

References

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2. Naik, U et al; Mechanisms of platelet activation by a stimulatory antibody: cross-linking of a novel platelet receptor for monoclonal antibody F11 with the Fc gamma RII receptor. Biochem J 1995, 310: 155
3. Wang, F et al; Stimulatory antibody-induced activation and selective translocation of protein kinase C isoenzymes in human platelets. Biochem J 1995, 311: 401
4. Sobocka, M et al; Cloning of the human platelet F11 receptor: a cell adhesion molecule member of the immunoglobulin superfamily involved in platelet aggregation. Blood 2000, 95: 2600

5. Babinska, A et al; Two regions of the human platelet F11-receptor (F11R) are critical for platelet aggregation, potentiation and adhesion. Thromb Haemost 2002, 87: 712
6. Babinska, A et al; The F11 receptor (F11R/JAM-A) in atherothrombosis: overexpression of F11R in atherosclerotic plaques. Thromb Haemost 2007, 97: 272
7. Cavusoglu, E et al; Association of plasma levels of F11 receptor/junctional adhesion molecule-A (F11R/JAM-A) with human atherosclerosis. JACC 2007, 50: 1768
8. Koenen, R et al; Regulated release and functional modulation of junctional adhesion molecule A by disintegrin metalloproteinases. Blood 2009, 113: 4799

Storage&stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC	Date
Brenda Teunissen	16/11/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.