# **Technical Data Sheet**

# Purified Mouse Anti-Human CD321 (JAM-1)

### **Product Information**

**Material Number:** 552147

Alternate Name: JAM-1; Platelet F11 receptor; F11R; JAM-A; PAM-1

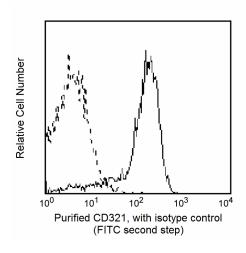
Size Concentration: 0.5 mg/ml M.Ab.F11 Clone: Isotype: Mouse IgG1, κ Reactivity: QC Testing: Human

Workshop: VIII 80154

Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

## Description

The M.Ab.F11 monoclonal antibody specifically binds to CD321 which is also known as JAM-1 (Junctional adhesion molecule 1), Junctional adhesion molecule A (JAM-A), and F11 Receptor (F11R). CD321 is a 32-35 kDa type I transmembrane glycoprotein that includes two extracellular immunoglobulin-like domains. CD321 is expressed on platelets, leucocytes, red blood cells, endothelial cells, epithelial cells, and various cell lines. CD321 functions as an adhesion receptor molecule on platelets. It also supports the tight junction formation between endothelial cells, where it may regulate the transendothelial migration of leucocytes, and epithelial cells. M.Ab.F11 is a stimulatory antibody that can induce morphological changes, granule secretion, and aggregation in human platelets.



Flow cytometric analysis of human CD321 staining on platelets. Peripheral blood platelets were stained with either Purified Mouse Anti-Human CD321 (JAM-1) (Cat. No. 552147; solid line histogram) or Purified Mouse IgG1, k Isotype Control (Cat. No. 555746; dashed line histogram). followed by second step staining with FITC Goat Anti-Mouse IgG/IgM (Cat. No. 555988).

### **Preparation and Storage**

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

# **Application Notes**

Application

Flow cytometry Routinely Tested

# **Suggested Companion Products**

| Catalog Number | Name Name                              | <u>Size</u> | Clone      |  |
|----------------|--|-------------|------------|--|
| 555746         | Purified Mouse IgG1, κ Isotype Control | 0.1 mg      | MOPC-21    |  |
| 555988         | FITC Goat Anti-Mouse IgG/IgM           | 0.5 mg      | Polyclonal |  |
| 554656         | Stain Buffer (FBS)                     | 500 mL      | (none)     |  |

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#### **Product Notices**

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
- 5. An isotype control should be used at the same concentration as the antibody of interest.

#### References

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Halasz P, Fleming FE, Coulson BS. Evaluation of specificity and effects of monoclonal antibodies submitted to the Eighth Human Leucocyte Differentiation Antigen Workshop on rotavirus-cell attachment and entry. Cell Immunol. 2005; 236(1-2):179-187. (Clone-specific: Flow cytometry)

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Naik UP, Ehrlich YH, Kornecki E. 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(1):155-162. (Biology)

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Wang F, Naik UP, Ehrlich YH, Osada S, Ohno S, Kornecki E. Stimulatory antibody-induced activation and selective translocation of protein kinase C isoenzymes in human platelets. Biochem J. 1995; 311(2):401-406. (Biology)

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