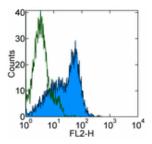


# Anti-Mouse CD9 Purified

Catalog Number: 14-0091 Also Known As:MIC3, Tspan29 RUO: For Research Use Only



Staining of C57Bl/6 bone marrow cells with 0.5  $\mu g$  of Rat IgG2a Isotype Control Purified (cat. 14-4321) (open histogram) or 0.5  $\mu g$  of Anti-Mouse CD9 Purified (filled histogram) followed by Anti-Rat IgG PE (cat. 12-4822). Cells in the large scatter population were used for analysis.

### **Product Information**

Contents: Anti-Mouse CD9 Purified

REF Catalog Number: 14-0091 Clone: eBioKMC8 (KMC8) Concentration: 0.5 mg/ml Host/Isotype: Rat IgG2a, κ Formulation: aqueous buffer, 0.09% sodium azide, may contain

carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C.

Batch Code: Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

#### Description

The eBioKMC8 monoclonal antibody reacts with mouse CD9, a 24 kDa member of the transmembrane 4 superfamily. This family is characterized by the presence of four hydrophobic domains spanning the cell membrane and short N- and C-terminal cytoplasmic domains. CD9 is expressed by several cell types including monocytes, macrophages, platelets, early B cells, activated B and T cells, dendritic cells, eosinophils, basophils, endothelial cells, myoblasts and neuroblasts. On T cells, CD9 functions as a co-stimulatory molecule on naïve T cells. Furthermore, CD9 is expressed in oocytes, and CD9-deficiency results in sterility caused by defective gamete fusion. In mouse macrophages, CD9 functionally associates with FcyRs to modify signals for phagocytosis and inflammatory responses. In mouse B cells, it was discovered that CD9 is a marker for marginal zone B cells, B1 cells, and plasma cells. In dendritic cells, recently it was demonstrated that CD9 facilitates the association of heterologous MHC II molecules. The level of CD9 expression is subject to donor variability.

#### **Applications Reported**

This eBioKMC8 (KMC8) antibody has been reported for use in flow cytometric analysis, and immunoblotting (WB) (non-reducing).

## **Applications Tested**

This eBioKMC8 (KMC8) antibody has been tested by flow cytometric analysis of mouse splenocytes and bone marrow. This can be used at less than or equal to 1  $\mu$ g per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

#### References

Miyake K, Medina KL, Hayashi S, Ono S, Hamaoka T, Kincade PW. Related Articles, Links Monoclonal antibodies to Pgp-1/CD44 block lymphohemopoiesis in long-term bone marrow cultures. J Exp Med. 1990 Feb 1;171(2):477-88. (KMC8, mAb development, PubMed)

Oritani K, Wu X, Medina K, Hudson J, Miyake K, Gimble JM, Burstein SA, Kincade PW. Antibody ligation of CD9 modifies production of myeloid cells in long-term cultures. Blood. 1996 Mar 15;87(6):2252-61.

Tachibana I, Hemler ME. Role of transmembrane 4 superfamily (TM4SF) proteins CD9 and CD81 in muscle cell fusion and myotube maintenance. J Cell Biol. 1999 Aug 23;146(4):893-904. (KMC8, WB, IP, FA, PubMed)

**Related Products** 

11-4317 Streptavidin FITC

11-4811 Anti-Rat IgG FITC

12-4317 Streptavidin PE

13-4813 Anti-Rat IgG Biotin (Polyclonal)

14-0098 Anti-Human CD9 Purified (eBioSN4 (SN4 C3-3A2)) 14-4321 Rat IgG2a K Isotype Control Purified 17-4317 Streptavidin APC

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