Rat Anti-Mouse CD106

Overview

Clone: M/K-2  
Isotype: Rat (Fisher) IgG1\(\kappa\)  
Immunogen: BALB/3T3 and +/-2.4 cells  
Specificity: Mouse CD106; Mr 100-110 kDa  
Alternate Name(s): VCAM-1, INCAM-110

Description

CD106, also known as VCAM-1, is an adhesion molecule and a major mediator of the inflammatory response. It is expressed on activated microvascular endothelial cells in response to signals arising from immune responses in infection, graft rejection, tumor recognition and killing. The complementary binding ligand for VCAM-1 is VLA-4/CD49d. In addition to VCAM-1, VLA-4 also recognizes the extracellular matrix molecule fibronectin. This pairing of VCAM-1 and VLA-4 is able to provide a second signal (e.g., non-antigen specific) for T cell stimulation, such as that seen in transplantation. The monoclonal antibody MK-2 has been used in transplant studies to suppress cardiac rejection and induce long-term cardiac graft survival. In addition to inflammatory responses, VCAM-1 has a significant role in hemopoiesis through its ability to retain lymphocyte and myeloid precursors on stromal cells in the marrow and lymphoid organs. CD106/VCAM-1 exists as an integral membrane protein. The M/K-2 monoclonal antibody immunoprecipitates a peptide that gives a single band on SDS-PAGE gels with an apparent Mr of ~100 kDa under reducing conditions and 92 kDa under non-reducing conditions.

Applications

FC – Quality tested 4,8,9  
IHC-FS – Reported in literature 4-7  
IP – Reported in literature 1,2  
WB – Reported in literature 1,2  
Adhesion – Reported in literature 1-3  
Block – Reported in literature 1-3

Working Dilutions

Flow Cytometry: FITC and BIOT conjugates ≤ 1 µg/10^6 cells  
PE conjugate ≤ 0.2 µg/10^6 cells  
For flow cytometry, the suggested use of these reagents is in a final volume of 100 µL

For Research Use Only. Not for Diagnostic or Therapeutic Use.
Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. No preservatives or amine-containing buffer salts added. Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaNO3. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaNO3. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN3 and a stabilizing agent. Store at 2-8°C. Do not freeze!
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of PBS. Aliquot and store at or below -20°C.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific (M)SDS.

References

8. Ambardekar VV, Han H, Varney ML, Vinogradov SV, Singh RK, Vetro JA. The modification of siRNA with 3' cholesterol to increase nuclease protection and suppression of native mRNA by select siRNA polyplexes. Biomaterials. 2011;32:1404-11. (FC)