

anti-human/ -mouse CD49d

Monoclonal Antibody PS/2 to CD49d (Human)

Cat-No: **21858491**

100 µg in 100 µl

Clone: PS/2

Specificity: PS/2 recognises murine alpha 4 integrin (CD49d), a 150kD glycoprotein that can associate with either beta 1 integrin (CD29) or beta 7 integrin to form heterodimers CD49d/CD29 (VLA-4) and alpha4/beta7 (LPAM-1) respectively. CD49d is expressed on most lymphocytes, granulocytes, monocytes and thymocytes. The primary ligands for CD49d are CD106 (VCAM-1), fibronectin and MAdCAM-1.

Isotype subclass: Rat IgG2b

Physical state: Liquid

Buffer/Additives/Preservative: PBS with 0.09 % sodium azide (pH 7.2).

Form: Purified via Protein G chromatography

Purity: > 95% (by SDS-PAGE)

Expiration date: The reagent is stable until the expiry date stated on the vial label.

Storage conditions: Store at 4 °C. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

Application: Flow cytometry

Background: Integrins alpha-4/beta-1 (VLA-4 or LPAM-2) and alpha-4/beta-7 (LPAM-1) are receptors for fibronectin. They recognize one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. They are also receptors for VCAM1. Integrin alpha-4/beta-1 recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-4/beta-7 is also a receptor for MAdCAM1. It recognizes the sequence L-D-T in MAdCAM1. On activated endothelial cells integrin VLA-4 triggers homotypic aggregation for most VLA-4-positive leukocyte cell lines. It may also participate in cytolytic T-cell interactions with target cells. Integrin alpha-4/beta-7 is also a receptor for MAdCAM1. Mice homozygous for a null mutation of the alpha-4 subunit gene die by day E11-E14 from detachment and rupture of the epicardium and coronary arteries.

References:

- 1.) Rothhammer, V., S. Heink, et al. (2011). „Th17 lymphocytes traffic to the central nervous system independently of α 4 integrin expression during EAE.” The Journal of Exp Med

Warning: Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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