## anti-human/mouse CD49d no azide

Monoclonal Antibody PS/2 to CD49d (Human)

Cat-No: 21858490

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: sterile PBS, (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:** Aliquot and store at -20°C. Avoid freeze/thaw cycles. Should be handled under aseptic conditions.

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 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 α4 integrin expression during EAE." The Journal of Exp Med

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