## Mouse Anti-Human CD49f

| Cat. No. | Format | Size |
| :--- | :--- | :---: |
| $9650-01$ | Purified (UNLB) | 0.1 mg |
| $9650-02$ | Fluorescein (FITC) | 100 tests |
| $9650-09$ | R-phycoerythrin (PE) | 100 tests |



Human peripheral blood lymphocytes were stained with Mouse Anti-Human CD49f-FITC (SB Cat. No. 9650-02) and Mouse Anti-Human CD19-PE (SB Cat. No. 9340-09).

## Overview

| Clone | 4F10 |
| :--- | :--- |
| Isotype | Mouse $(\mathrm{BALB} / \mathrm{c}) \operatorname{lgG}_{2 \mathrm{~b} \kappa} \kappa$ |
| Immunogen | SW 1222 human colorectal cell line |
| Specificity | Human CD49f; Mr 125 kDa |
| Alternate Name(s) | Integrin $\alpha_{6}$ chain, VLA- $\alpha$ chain, platelet gplc |
| Workshop | $\mathrm{N} / \mathrm{A}$ |

## Description

CD49f is the 125 kDa integrin $\alpha_{6}$ chain which associates noncovalently with the integrin $\beta_{1}$ subunit (CD29) and with the integrin $\beta_{4}$ (CD104) chain to form, respectively, the very late antigen-6 (VLA-6) and $\alpha_{6} \beta_{4}$ integrin heterodimers. VLA- 6 is expressed on thymocytes, T lymphocytes, monocytes, and platelets. CD49f/CD29 expression is upregulated on activated T lymphocytes and memory T cells. VLA-6 serves as the laminin receptor on platelets, monocytes, and T cells. VLA-6-mediated binding to laminin provides a costimulatory signal to T cells for activation and proliferation.

## Applications

FC - Quality tested ${ }^{4}$
IHC-FS - Reported in literature ${ }^{1}$
IHC-PS - Reported in literature ${ }^{2}$
IP - Reported in literature ${ }^{3}$

## Working Dilutions

| Flow Cytometry | Purified (UNLB) antibody <br> FITC and PE conjugates | $\leq 1 \mu \mathrm{~g} / 10^{6}$ cells |
| :--- | :--- | :--- |
| For flow cytometry, the suggested use of these reagents is in a final volume of $100 \mu \mathrm{~L}$ |  |  |

For Research Use Only. Not for Diagnostic or Therapeutic Use.

## Handling and Storage

- The purified (UNLB) antibody is supplied as 0.1 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 $2-8^{\circ} \mathrm{C}$.
- The fluorescein (FITC) conjugate is supplied as 100 tests in 1.0 mL of $\mathrm{PBS} / \mathrm{NaN}_{3}$. Store at $2-8^{\circ} \mathrm{C}$.
- The R-phycoerythrin (PE) conjugate is supplied as 100 tests in 1.0 mL of $\mathrm{PBS} / \mathrm{NaN}_{3}$ and a stabilizing agent. Store at $2-8^{\circ} \mathrm{C}$. Do not freeze!
- 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

1. Bonnekoh B, Pommer AJ, Böckelmann R, Philipsen L, Hofmeister H, Gollnick H. In-situ-topoproteome analysis of cutaneous lymphomas: perspectives of assistance for dermatohistologic diagnostics by Multi Epitope Ligand Cartography (MELC). J Dtsch Dermatol Ges. 2008;6:1038-51. (IHC-FS)
2. Pontes-Júnior J, Reis ST, de Oliveira LC, Sant'Anna AC, Dall'Oglio MF, Antunes AA, et al. Association between integrin expression and prognosis in localized prostate cancer. Prostate. 2010;70:1189-95. (IHC-PS)
3. Serru V, Le Naour F, Billard M, Azorsa DO, Lanza F, Boucheix C, et al. Selective tetraspan-integrin complexes (CD81/ $\alpha 4 \beta 1$, CD151/ $\alpha 3 \beta 1$, CD151/ 681 ) under conditions disrupting tetraspan interactions. Biochem J. 1999;340:103-11. (IP)
4. Roy V, Verfaillie CM. Expression and function of cell adhesion molecules on fetal liver, cord blood and bone marrow hematopoietic progenitors: implications for anatomical localization and developmental stage specific regulation of hematopoiesis. Exp Hematol. 1999;27:302-12. (FC)
