

Datasheet: MCA699T

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| Description: | RAT ANTI HUMAN CD49f |
| Specificity: | CD49f |
| Other names: | INTEGRIN ALPHA 6 CHAIN, VLA-6 |
| Format: | Purified |
| Product Type: | Monoclonal Antibody |
| Clone: | NKI-GoH3 |
| Isotype: | IgG2a |
| Quantity: | 25 µg |

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

| | Yes | No | Not Determined | Suggested Dilution |
|----------------------------|-----|----|----------------|--------------------|
| Flow Cytometry | ▪ | | | 1/50 - 1/200 |
| Immunohistology - Frozen | ▪ | | | |
| Immunohistology - Paraffin | | | ▪ | |
| ELISA | | | ▪ | |
| Immunoprecipitation | ▪ | | | |
| Western Blotting | | | ▪ | |
| Immunofluorescence | ▪ | | | |

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

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| Target Species | Human |
| Species Cross Reactivity | Reacts with: Mouse, Dog, Pig, Cynomolgus monkey, Sheep N.B. Antibody reactivity and working conditions may vary between species. |
| Product Form | Purified IgG - liquid |
| Preparation | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant |
| Buffer Solution | Phosphate buffered saline |
| Preservative Stabilisers | 0.09% Sodium Azide |
| Carrier Free | Yes |
| Approx. Protein Concentrations | IgG concentration 1.0 mg/ml |

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| Immunogen | BALB/c mouse mammary tumor cells |
| External Database Links | <p>UniProt: P23229 Related reagents</p> <p>Entrez Gene: 3655 ITGA6 Related reagents</p> |
| Fusion Partners | Spleen cells from immunized Sprague-Dawley rats were fused with cells of the SP2/0 mouse myeloma cell line |
| Specificity | <p>Rat anti Human CD49f antibody, clone NKI-GoH3 recognizes CD49f, also known as the VLA-6 alpha chain. CD49f is a 1107 amino acid ~120 kDa cell surface glycoprotein that forms distinct complexes with CD29 (VLA beta-chain), resulting in the VLA-6 (alpha-6 beta-1) complex, expressed on human platelets, or with the beta-4 integrin resulting in the alpha-6 beta-4 complex expressed on various human epithelial cells.</p> <p>Rat anti Human CD49f antibody, clone NKI-GoH3 reacts with platelets, megakaryocytes, T lymphocytes and common acute lymphoblastic leukemia cells (alpha-6 beta-1). In immunohistology the monoclonal antibody reacts with epithelial cells of a variety of tissues, peripheral nerves, microvascular endothelial cells, placenta cyto- and syncytiotrophoblasts. VLA-6 is an important mediator of cell binding to laminin.</p> <p>Rat anti Human CD49f antibody, clone NKI-GoH3 blocks the binding of cells to the E8 fragment of laminin (Sonnenberg <i>et al.</i> 1998).</p> |
| Flow Cytometry | Use 10ul of the suggested working dilution to label 10 ⁶ platelets in 100ul. |
| Histology Positive Control Tissue | Human Tonsil |
| References | <ol style="list-style-type: none"> Jensen, K.B. <i>et al.</i> (2010) Assaying proliferation and differentiation capacity of stem cells using disaggregated adult mouse epidermis. Nat Protoc. 5 (5): 898-911. Soligo, D. <i>et al.</i> (1989) Immunohistochemical reactivity on bone marrow and tissues of anti-VLA antibodies in the platelet panel, in Leucocyte Typing IV: White Cell Differentiation Antigens. Edited by Knapp, W. <i>et al.</i> Oxford University Press p1029-1032. Sonnenberg, A. <i>et al.</i> (1986) Development of mouse mammary gland: identification of stages in differentiation of luminal and myoepithelial cells using monoclonal antibodies and polyvalent antiserum against keratin. J Histochem Cytochem. 34 (8): 1037-46. Sonnenberg, A. <i>et al.</i> (1987) A complex of platelet glycoproteins Ic and IIa identified by a rat monoclonal antibody. J Biol Chem. 262 (21): 10376-83. Hemler, M.E. <i>et al.</i> (1988) Multiple very late antigen (VLA) heterodimers on platelets. Evidence for distinct VLA-2, VLA-5 (fibronectin receptor), and VLA-6 structures. J Biol Chem. 263 (16): 7660-5. Galkowska, H. <i>et al.</i> (1996) Reactivity of antibodies directed against human antigens with surface markers on canine leukocytes. Vet Immunol Immunopathol. 53 (3-4): 329-34. Sonnenberg, A. <i>et al.</i> (1988) Laminin receptor on platelets is the integrin VLA-6. Nature. 336 (6198): 487-9. Sonnenberg, A. <i>et al.</i> (1990) Integrin recognition of different cell-binding fragments of laminin (P1, E3, E8) and evidence that alpha 6 beta 1 but not alpha 6 beta 4 functions as a major receptor for fragment E8. J Cell Biol. 110 (6): 2145-55. Yoshino, N. <i>et al.</i> (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines |

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11. Sonnenberg, A. *et al.* (1988) Identification and characterization of a novel antigen complex on mouse mammary tumor cells using a monoclonal antibody against platelet glycoprotein Ic. [J Biol Chem. 263 \(28\): 14030-8.](#)

12. Le Bellego, F. *et al.* (2005) Cytoskeleton reorganization mediates alpha6beta1 integrin-associated actions of laminin on proliferation and survival, but not on steroidogenesis of ovine granulosa cells. [Reprod Biol Endocrinol. 3: 19.](#)

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18. Peuhu, E. *et al.* (2017) Integrin beta 1 inhibition alleviates the chronic hyperproliferative dermatitis phenotype of SHARPIN-deficient mice [PLOS ONE. 12 \(10\): e0186628.](#)

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Further Reading 1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. [Vet Res. 39: 54.](#)

Storage Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life 18 months from date of despatch.

Health And Safety Information Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR17...)

[FITC](#)

Goat Anti Rat IgG (STAR69...)

[FITC](#)

Goat Anti Rat IgG (STAR131...)

[Alk. Phos., Biotin](#)

Goat Anti Rat IgG (STAR73...) [RPE](#)
Rabbit Anti Rat IgG (STAR21...) [HRP](#)
Goat Anti Rat IgG (STAR72...) [HRP](#)
Rabbit Anti Rat IgG (STAR16...) [DyLight®800](#)
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) [DyLight®649](#), [DyLight®800](#)

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