

CD49a Antibody | anti-CD49a antibody

Anti-Hu CD49a PE

CATALOG # AAA129245	REACTIVITY Human, Non-human primates	APPLICATIONS Flow Cytometry, Functional Assay
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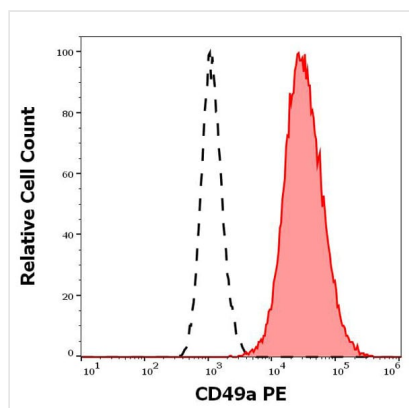
PRODUCT SYNONYMS

CD49a; Anti-Hu CD49a PE; integrin subunit alpha 1; alpha 1 integrin; VLA-1 alpha; ITGA1; anti-CD49a antibody

PRODUCT SPECIFICATIONS

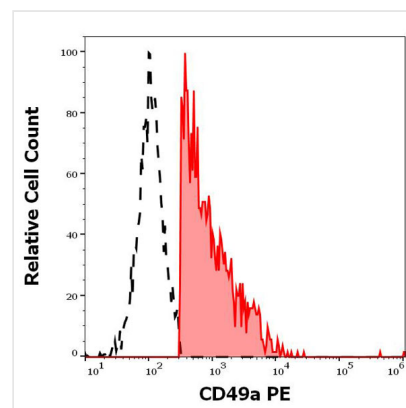
Reactivity	Human, Non-human primates
Isotype	Mouse IgG1
Clone Number	TS2/7
Specificity	The mouse monoclonal antibody TS2/7 recognizes an extracellular epitope of CD49a, the alpha 1 chain of VLA integrin complex, that serves as an adhesion receptor for collagen IV and laminin 1.
Form/Format	PE Purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography. Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Applicable Applications for anti-CD49a antibody	FCM/FACS (Flow Cytometry)
Immunogen	human CTL line
Preparation and Storage	Store at 2-8 degree C. Protect from prolonged exposure to light. Do not freeze.

IMAGES



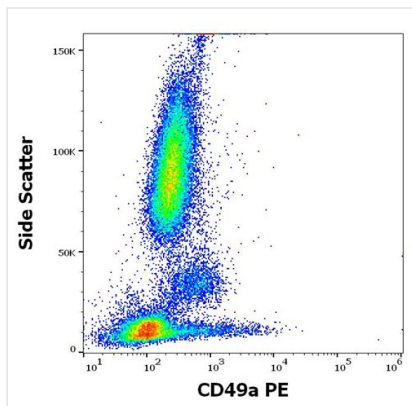
FCM/FACS (Flow Cytometry)

Separation of HeLa cells stained using anti-human CD49a (TS2/7) PE antibody (10 ?l reagent per million cells in 100 ?l of cell suspension, red-filled) from HeLa cells stained using mouse IgG1 isotype control (MOPC-21) PE antibody (concentration in sample 3 ?g/ml, same as CD49a PE concentration, black-dashed) in flow cytometry analysis (surface staining) of HeLa cell suspension.



FCM/FACS (Flow Cytometry)

Separation of human CD49a positive lymphocytes (red-filled) from CD49a negative lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD49a (TS2/7) PE antibody (10 ?l reagent / 100 ?l of peripheral whole blood).



FCM/FACS (Flow Cytometry)
Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD49a (TS2/7) PE antibody (10 µl reagent / 100 µl of peripheral whole blood).

ADDITIONAL INFORMATION

Related Product Information for anti-CD49a antibody	CD49a is the alpha 1 chain of VLA integrin complex (together with CD29, serving as the beta 1 chain), and is expressed on activated T cells, monocytes, NK cells, cultured neuronal cells, melanoma cells, mesenchymal cells (including smooth muscle cells), fibroblasts, hepatocytes, and microvascular endothelium. It binds to collagen IV and laminin 1. It is important for leukocyte migration into tissues. It is upregulated in inflammatory tissues, such as inflamed intestine.
References	*Melssen MM, Olson W, Wages NA, Capaldo BJ, Mauldin IS, Mahmutovic A, Hutchison C, Melief CJ, Bullock TN, Engelhard VH, Slingluff CL: Formation and phenotypic characterization of CD49a, CD49b and CD103 expressing CD8 T cell populations in human metastatic melanoma. <i>Oncoimmunology</i>. 2018 Aug 6;7(10):e1490855., URL: https://pubmed.ncbi.nlm.nih.gov/30288359/?from_term=melssen+&from_pos=5,*Luque A, Gómez M, Puzon W, Takada Y, Sánchez-Madrid F, Cabañas C: Activated conformations of very late activation integrins detected by a group of antibodies (HUTS) specific for a novel regulatory region (355-425) of the common beta 1 chain. <i>J Biol Chem</i>. 1996 May 10;271(19):11067-75., URL: https://pubmed.ncbi.nlm.nih.gov/8626649/?from_term=luque+takada&from_pos=2,*Canfield SM, Khakoo AY: The nonintegrin laminin binding protein (p67 LBP) is expressed on a subset of activated human T lymphocytes and, together with the integrin very late activation antigen-6, mediates avid cellular adherence to laminin. <i>J Immunol</i>. 1999 Sep 15;163(6):3430-40., URL: https://pubmed.ncbi.nlm.nih.gov/10477615/?from_term=the+nonintegrin+laminin+binding&from_pos=7,*Martrus G, Kautz T, Lunemann S, Richert L, Glau L, Salzberger W, Goebels H, Langeneckert A, Hess L, Poch T, Schramm C, Oldhafer KJ, Koch M, Tolosa E, Nashan B, Altfeld M: Proliferative capacity exhibited by human liver-resident CD49a+CD25+ NK cells. <i>PLoS One</i>. 2017 Aug 9;12(8):e0182532., URL: https://pubmed.ncbi.nlm.nih.gov/28792982/?from_term=martrus+kautz&from_pos=1,*Thomson-Luque R, Wang C, Tumgia FB, Xu S, Szekeres K, Conway A, Adapa SR, Barnes SJ, Adams JH, Jiang RH: In-depth phenotypic characterization of reticulocyte maturation using mass cytometry. <i>Blood Cells Mol Dis</i>. 2018 Sep;72:22-33., URL: https://pubmed.ncbi.nlm.nih.gov/30007855/?from_term=in-depth+phenotypic+characterization+of+reticulocyte&from_pos=1,*Marquardt N, Kekäläinen E, Chen P, Lourda M, Wilson JN, Scharenberg M, Bergman P, Al-Ameri M, Hård J, Mold JE, Ljunggren HG, Michaëlsson J: Unique transcriptional and protein-expression signature in human lung tissue-resident NK cells. <i>Nat Commun</i>. 2019 Aug 26;10(1):3841., URL: https://pubmed.ncbi.nlm.nih.gov/31451696/?from_term=marquardt+n+chen+p&from_pos=1,*Quardokus EM, Saunders DC, McDonough E, Hickey JW, Werlein C, Surrette C, Rajbhandari P, Martinez Casals A, Tian H, Lowery L, Neumann EK, Björklund F, Neelakantan TV, Croteau J, Wiblin AE, Fisher J, Livengood AJ, Dowell KG, Silverstein JC, Spraggins JM, Pryhuber GS, Deutsch G, Ginty F, Nolan GP, Melov S, Jonigk D, Caldwell MA, Vlachos IS, Mueller W, Gehlenborg N, Stockwell BR, Lundberg E, Snyder MP, Germain RN, Camarillo JM, Kelleher NL, Börner K, Radtke AJ: Organ mapping antibody panels: a community resource for standardized multiplexed tissue imaging. <i>Nat Methods</i> 2023 Aug;20(8):1174-1178. doi: 10.1038/s41592-023-01846-7., URL: https://pubmed.ncbi.nlm.nih.gov/37468619/,

NCBI AND UNIPROT INFORMATION

NCBI GI #	124056463
NCBI GeneID	3672

UniProt Accession #	P56199; B2RNU0
Molecular Weight	130,848 Da
NCBI Official Full Name	Integrin alpha-1
NCBI Official Synonym Full Names	integrin, alpha 1
NCBI Official Symbol	ITGA1
NCBI Official Synonym Symbols	VLA1; CD49a
NCBI Protein Information	integrin alpha-1; VLA-1; laminin and collagen receptor; very late activation protein 1; CD49 antigen-like family member A
UniProt Protein Name	Integrin alpha-1
UniProt Gene Name	ITGA1
UniProt Entry Name	ITA1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/human-primate-antibody/cd49a/129245>