

Product datasheet for **AM32393PU-N**

Integrin alpha 5 (ITGA5) Mouse Monoclonal Antibody [Clone ID: NKI-SAM1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	NKI-SAM1
Applications:	FC, IHC
Recommended Dilution:	Fluorescence experiments: NKI-SAM-1 is suitable for Flow Cytometry (using 0.5-1 µg for 10 ⁶ cells) and can be used to determine the VLA-5 expression in peripheral blood monocytes and monocyte derived dendritic cells B cells and B-cell precursors. Immunohistochemistry on Frozen Sections: 1/20 (Acetone Fixation).
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Specificity:	This antibody recognizes a 150/130 kD receptor for fibronectin, (VLA-alpha-5 protein from the integrin superfamily of antigens). It reacts with platelets, lymphocytes, monocytes and most cell lines including K562 and U937.
Formulation:	PBS State: Purified State: Liquid purified IgG fraction Preservative: 0.09% Sodium Azide
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.
Gene Name:	integrin subunit alpha 5
Database Link:	Entrez Gene 3678 Human P08648



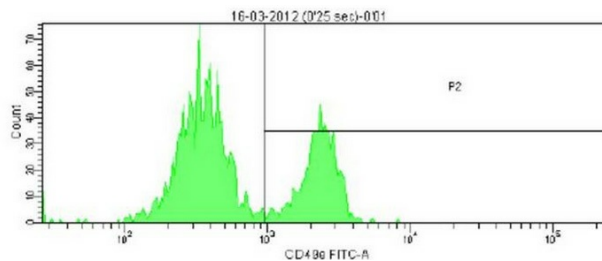
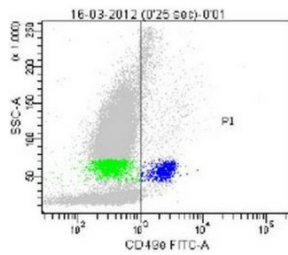
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Background:

Integrins are transmembrane glycoproteins that belong to the family of adhesion molecules. They promote interactions between cells and their environment, being both other cells or the extra- cellular matrix. Integrins are a family of heterodimeric membrane glycoproteins consisting of non-covalently associated subunits, i.e. an α -subunit of 95 kDa that is conserved through the superfamily and a more variable β subunit of 150-170 kDa. More than 18 α and 8 β subunits with numerous splice variant isoforms have been identified in mammals. The integrin $\alpha 5$ chain (160 kDa) (CD49e), undergoes post-translational cleavage in the extracellular domain to yield disulfide-linked light (25 kDa) and heavy (135 kDa) chains, which non-covalently associate with the integrin $\beta 1$ subunit (CD29) (130 kDa), thus forming the heterodimer $\alpha 5$ - $\beta 1$ very late antigen (VLA-5) complex. VLA-5 is a fibronectin receptor (FNr) that is expressed on thymocytes, T-cells, monocytes and platelets. It is also found on very early B-cells and activated B-cells. VLA-5 mediates binding of T- and B-cells to fibronectin, an extracellular matrix glycoprotein involved in cell adhesion and migration in wound healing, embryonic development and malignant transformation. The VLA-5 or FNr binds only fibronectin recognizing the Arg-Gly-Asp (RGD) sequence in the central region of the molecule.

Synonyms:

Integrin alpha-5, Fibronectin receptor subunit alpha, Integrin alpha-F, VLA-5, VLA5, FNRA

Product images:


Flow Cytometric analysis of human monocytes showing CD49e positive population