

Product datasheet for **AM33009PU-N**

CD11a (ITGAL) (Activator) Mouse Monoclonal Antibody [Clone ID: NKI(SPV)-L16]

Product data:

Product Type:	Primary Antibodies
Clone Name:	NKI(SPV)-L16
Applications:	FC, IP
Recommended Dilution:	Flow Cytometry. Immunoprecipitation.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Immunization of Balb/c mice with monocytes. The unique activation dependent epitope of the SPV-L16 antibody on the a-chain of LFA-1 is relatively insensitive to trypsin treatment and thus most likely located close to the transmembrane segment of the protein.
Specificity:	This antibody recognizes an activation epitope of CD11a and has been essential to define inside-out signaling of integrin. Homotypic cell aggregate formation is stimulated. A unique antibody <i>NKI(SPV)-L16</i> , reacting with the a-chain of the human leukocyte function-associated Ag-1 (LFA-1) has been made available. This antibody stimulates homotypic cell-cell interactions in a manner very similar to 12-O-tetradecanoyl-phorbol-13-acetate (TPA), in contrast to other anti-LFA-1 mAb which inhibit cell aggregation. Immunoprecipitation and enzyme digestion studies revealed that NKI-L16 recognizes a unique epitope on the cy-chain of LFA-1, most likely situated close to the transmembrane segment of the molecule. It is hypothesized that NKI-L16 or TPA can cause the LFA-1 molecule to convert from an inactive to an active configuration, thereby permitting binding of LFA-1 to its natural ligand. This mAb directed, in contrast to other anti-LFA-1 antibodies, stimulates rather than inhibits homotypic cell aggregate formation, but does not affect cell proliferation.
Formulation:	PBS State: Purified State: Liquid purified IgG fraction Preservative: 0.09% Sodium Azide
Concentration:	lot specific



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Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freeze-thaw cycles.
Stability:	Shelf life: One year from despatch.
Gene Name:	integrin subunit alpha L
Database Link:	Entrez Gene 3683 Human P20701
Background:	<p>Integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide), also known as ITGAL, is a human gene which functions in the immune system. It is involved in cellular adhesion and costimulatory signaling.</p> <p>ITGAL encodes the integrin alpha L chain. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form the integrin lymphocyte function-associated antigen-1 (LFA-1), which is expressed on all leukocytes.</p> <p>LFA-1 is part of the family of leukocyte integrins that are recognised by their common β-chains (CD18). LFA-1 also has a distinct α-chain (CD11a).</p> <p>LFA-1 is expressed on lymphocytes, monocytes and granulocytes; it has been shown that LFA-1 contributes to the adhesion reaction of these cells. Blocking experiments with anti-LFA-1 monoclonal antibodies demonstrated that LFA-1 inhibits the adhesion step effector and target cells in cytotoxic T lymphocyte, natural killer and lectin dependent cytotoxicity.</p> <p>LFA-1 is involved in recruitment to the site of infection. It binds to ICAM-1 on antigen-presenting cells and functions as an adhesion molecule. LFA-1 is the first to bind T-cells to antigen-presenting cells and initially binds weakly. A signal from the T-cell receptor and/or the cytokine receptor changes the conformation and prolongs the cell contact, allowing the T-cell to proliferate.</p>
Synonyms:	Integrin alpha-L, LFA1, LFA-1