30-2661: Anti-Human CD11a PE (Clone : MEM-83)

Clonality :	Monoclonal
Clone Name :	MEM-83
Application :	FACS
Reactivity :	Human
Conjugate :	PE
Gene :	ITGAL
Gene ID :	3683
Alternative Name :	LFA-1, LFA1A, ITGAL,integrin subunit alpha L
Isotype :	Mouse IgG1
Immunogen Information :	Human peripheral blood lymphocytes

Description

CD11a (LFA-1 alpha) together with CD18 constitute leukocyte function-associated antigen 1 (LFA-1), the alphaLbeta2 integrin. CD11a is implicated in activation of LFA-1 complex. LFA-1 is expressed on the plasma membrane of leukocytes in a low-affinity conformation. Cell stimulation by chemokines or other signals leads to induction the high-affinity conformation, which supports tight binding of LFA-1 to its ligands, the intercellular adhesion molecules ICAM-1, -2, -3. LFA-1 is thus involved in interaction of various immune cells and in their tissue-specific settlement, but participates also in control of cell differentiation and proliferation and of T-cell effector functions. Blocking of LFA-1 function by specific antibodies or small molecules has become an important therapeutic approach in treatment of multiple inflammatory diseases. For example, humanized anti-LFA-1 antibody Efalizumab (Raptiva) is being used to interfere with T cell migration to sites of inflammation; binding of cholesterol-lowering drug simvastatin to CD11a allosteric site leads to immunomodulation and increase in lymphocytic cholinergic activity.

Specificity : The antibody MEM-83 reacts with an extracellular epitope of CD11a (alpha subunit of human LFA-1), a 170-180 kDa type I transmembrane glycoprotein expressed on B and T lymphocytes, monocytes, macrophages, neutrophils, basophils and eosinophils.

Product Info

Amount :	100 tests
Purification :	The purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Content :	Formulation : Stabilizing phosphate buffered saline (PBS) solution containing 15 mM sodium azide
Storage condition :	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light.

Application Note

Flow cytometry: The reagent is designed for analysis of human blood cells using 10 Ã\Âµl reagent / 100 Ã\Âµl of whole blood or 10^6 cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.
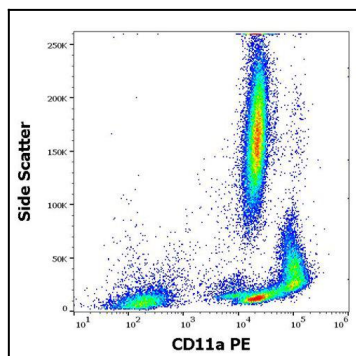
Figure 1 : Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD11a (MEM-83) PE antibody (4 µl reagent / 100 µl of peripheral whole blood).
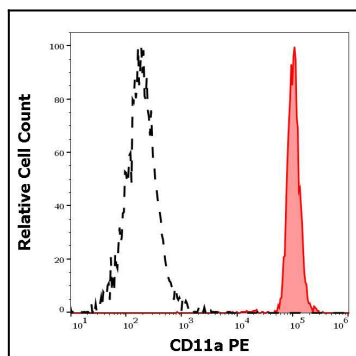

Figure 2 : Separation of human monocytes (red-filled) from CD45 negative cells (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD11a (MEM-83) PE antibody (4 µl reagent / 100 µl of peripheral whole blood).