

30-1123-APC-Cy7: Anti-CD25 / IL-2R alpha chain Monoclonal Antibody (Clone:MEM-181) APC-Cy™ 7 Conjugated

Clonality :	Monoclonal
Clone Name :	MEM-181
Application :	FACS
Reactivity :	Human
Conjugate :	APC/CY7
Gene :	IL2RA
Gene ID :	3559
Uniprot ID :	P01589
Alternative Name :	IL2RA
Isotype :	Mouse IgG1
Immunogen Information :	PHA-activated peripheral blood leucocytes

Description

Specificity: The antibody MEM-181 reacts with an extracellular epitope of CD25 (Interleukin-2 receptor alpha chain), a 55 kDa type I transmembrane glycoprotein expressed on activated B and T lymphocytes, activated monocytes/macrophages and on CD4+ T lymphocytes (T regulatory cells); it is lost on resting B and T lymphocytes.

Description: CD25 (IL2Ralpha, Tac) is a ligand-binding alpha subunit of interleukin 2 receptor (IL2R). Together with beta and gamma subunit CD25 constitutes the high affinity IL2R, whereas CD25 alone serves as the low affinity IL2R. CD25 expression rapidly increases upon T cell activation. The 55 kDa CD25 molecule is enzymatically cleaved and shed from the cell surface as a soluble 45 kDa s-Tac, whose concentration in serum can be used as a marker of T cell activation. Expression of CD25 indicates the neoplastic phenotype of mast cells. Humanized anti CD25 antibodies represent a useful tool to reduce the incidence of allograft rejection as well as the severity of graft versus host reaction, and radioimmunoconjugates of anti-CD25 antibodies can be used against CD25 expressing lymphomas.

Product Info

Amount :	100 tests
Purification :	Purified antibody is conjugated with activated tandem dye of allophycocyanin-cyanine 7 (APC-Cy™ 7) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.
Content :	Formulation : Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Storage condition :	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

Application Note

Flow cytometry: The reagent is designed for analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.

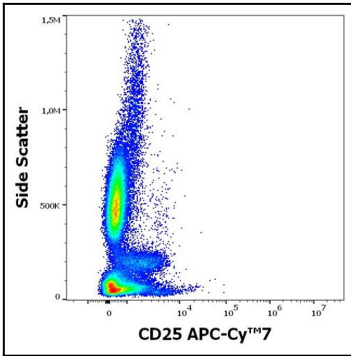


Figure 1: Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD25 (MEM-181) APC-Cy7 antibody (concentration in sample 0.5 µg/ml).

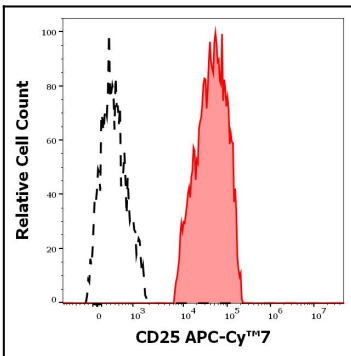


Figure 2: Separation of CD3 positive CD25 positive lymphocytes (red-filled) from CD3 negative CD25 negative lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human PHA stimulated peripheral whole blood stained using anti-human CD25 (MEM-181) APC-Cy7 antibody (concentration in sample 0.5 µg/ml).

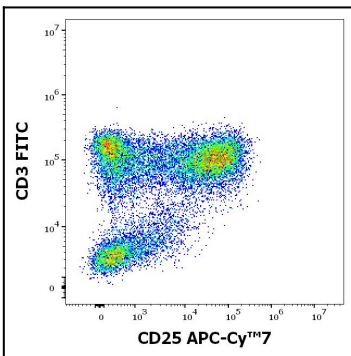


Figure 3: Flow cytometry multicolor surface staining pattern of human PHA stimulated lymphocytes using anti-human CD25 (MEM-181) APC-Cy7 antibody (concentration in sample 0.5 µg/ml) and anti-human CD3 (UCHT1) FITC antibody (20 µl reagent / 100 µl of peripheral whole blood).

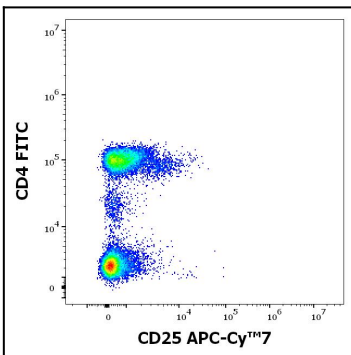


Figure 4: Flow cytometry multicolor surface staining pattern of human lymphocytes using anti-human CD25 (MEM-181) APC-Cy7 antibody (concentration in sample 0.5 µg/ml) and anti-human CD4 (MEM-241) FITC antibody (20 µl reagent / 100 µl of peripheral whole blood).

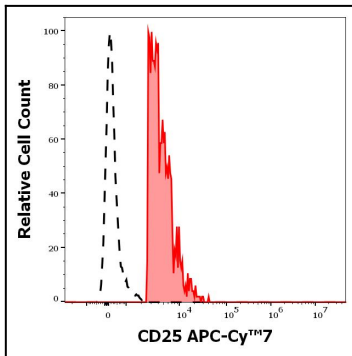


Figure 5: Separation of CD4 positive CD25 positive Treg cells (red-filled) from CD4 negative CD25 negative lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD25 (MEM-181) APC-Cy7 antibody (concentration in sample 0.5 $\mu\text{g/ml}$).