

## Product datasheet for **SM3020APC**

### CD4 (N-term) Mouse Monoclonal Antibody [Clone ID: MEM-241]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	MEM-241
Applications:	FC
Recommended Dilution:	<b>Flow Cytometry analysis</b> of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	2 N-terminal domains of human CD4 fused to human IgG1 Fc
Specificity:	The antibody recognizes CD4 antigen, a 55 kDa transmembrane glycoprotein expressed on a subset of T lymphocytes (helper T-cells) and also on monocytes, tissue macrophages and granulocytes.
Formulation:	Phosphate buffered saline (PBS) containing 15 mM sodium azide Label: APC State: Liquid purified Ig fraction Label: Conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use.
Conjugation:	APC
Storage:	Store the antibody at 2 - 8 °C. DO NOT FREEZE! This product is photosensitive and should be protected from light.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD4 molecule
Database Link:	<a href="#">Entrez Gene 920 Human P01730</a>



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**Background:**

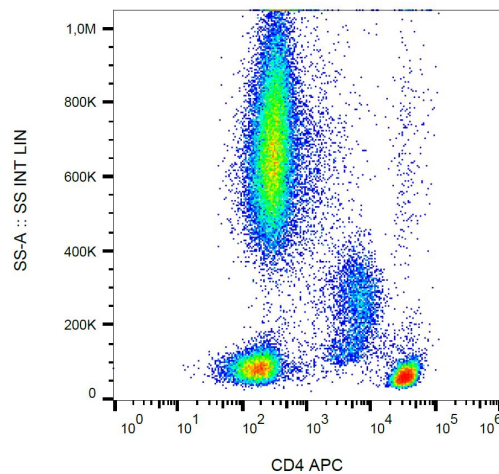
CD4 is a single chain transmembrane glycoprotein and belongs to immunoglobulin supergene family. In extracellular region there are 4 immunoglobulin-like domains (1 Ig-like V-type and 3 Ig-like C2-type). Transmembrane region forms 25 aa, cytoplasmic tail consists of 38 aa. Domains 1,2 and 4 are stabilized by disulfide bonds. The intracellular domain of CD4 is associated with p56Lck, a Src-like protein tyrosine kinase. It was described that CD4 segregates into specific detergent-resistant T-cell membrane microdomains.

Extracellular ligands: MHC class II molecules (binds to CDR2-like region in CD4 domain 1); HIV envelope protein gp120 (binds to CDR2-like region in CD4 domain 1); IL-16 (binds to CD4 domain 3), Human seminal plasma glycoprotein gp17 (binds to CD4 domain 1), L-selectin  
Intracellular ligands: p56Lck

CD4 is a co-receptor involved in immune response (co-receptor activity in binding to MHC class II molecules) and HIV infection (human immunodeficiency virus; CD4 is primary receptor for HIV-1 surface glycoprotein gp120). CD4 regulates T-cell activation, T/B-cell adhesion, T-cell differentiation, T-cell selection and signal transduction. Defects in antigen presentation (MHC class II) cause dysfunction of CD4+ T-cells and their almost complete absence in patients blood, tissue and organs (SCID immunodeficiency).

**Synonyms:**

T-cell surface antigen T4/Leu-3

**Product images:**

Surface staining of human peripheral blood cells with anti-human CD4 (MEM-241) APC.