

Recombinant Human Soluble CD4 Molecule

Cat. No. CD4-99H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human sCD4 produced in <i>Baculovirus</i> is a single, glycosylated polypeptide chain containing 365 amino acids and having a non glycosylated molecular mass of 45 kDa. As a result of glycosylation the sCD4 migrates as a 46 kDa protein on standard SDS-PAGE. Detected By Western Immune Blots anti CD4 monoclonal antibody. The sCD4 is purified by proprietary chromatographic techniques.
Species	Human
Source	Insect Cells
Description	CD4 is a cell-surface glycoprotein found on the mature helper T cells and immature thymocytes, as well as on monocytes and macrophages. (Some cytotoxic T cells have CD4 protein as well.) Normally, about 65% of T cells in the blood are CD4+ (have CD4 protein protruding from their membrane). A mature T cells with either have CD4 or CD8, but not both. During one stage of development T cells develop CD4 and CD8 receptors, but they eventually are differentiated in the thymus and become more specialized.
Amino Acid Sequence	The sequence of the amino acids was determined and was found to be: KKVVL GKKGDTVELT CTASQKKSIIQ FHWKNSNQIK ILGNQGSFLT KGPSKLNDRADSRRLWDQG NFPLIIKLNK IEDSDTYICE VEDQKEEVQL LVFGLTANSD THLLQGQSLT LTLESPPGSS PSVQCRSPRG KNIQGGKTLVSQLELQDSG TWTCTVLQNNQ KKVEFKIDIV VLAFAQASSI VYKKEGEQVE FSFPLAFTVE

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KLTGSGELWWQAERASSSKS WITFDLKNKE VSVKRVTQDP KLQMGKKLPL
 HLTLPQALPQ YAGSGNLTALAEAKTGKHLHQ EVNLVVMRAT QLQKNLTCEV
 WGPTSPKLML SLKLENKEAK VSKREKAVWV LNPEAGMWQC LLSDSGQVLL
 ESNIKVLPTW

Physical Appearance Sterile Filtered colorless solution (259µg/ml).

Purity Greater than 90.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Formulation The solution contains 10mM sodium phosphate buffer pH-7.0, 300 mM NaCl and 0.01% tween-80.

Biological Activity Immune reactive in ELISA using monoclonal anti CD4 in gp120 capture ELISA assays.

Storage sCD4 Human Recombinant although stable at 14°C for 1 week, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name CD4 CD4 molecule [Homo sapiens]

Synonyms CD4; CD4 molecule; CD4mut; T-cell surface glycoprotein CD4; CD4 antigen (p55); T-cell surface antigen T4/Leu-3; CD antigen; CD4 antigen; CD4 receptor

Gene ID 920

mRNA Refseq NM_000616

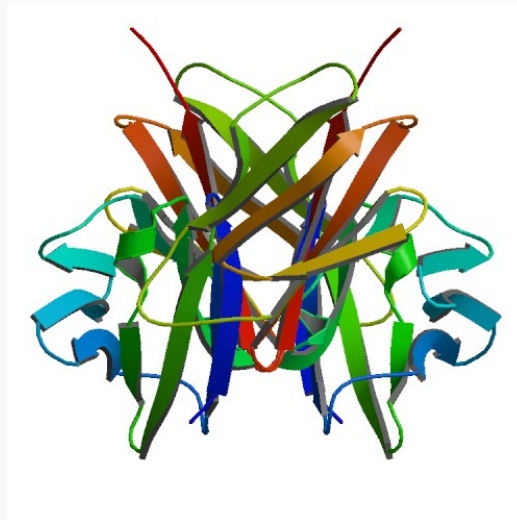
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Protein Refseq	NP_000607
MIM	186940
UniProt ID	P01730
Chromosome Location	12pter-p12
Pathway	Antigen processing and presentation; Cell adhesion molecules (CAMs); Hematopoietic cell lineage; Primary immunodeficiency; T cell receptor signaling pathway; HIV Infection; Signaling in Immune system
Function	MHC class II protein binding; coreceptor activity; extracellular matrix structural constituent; protein homodimerization activity; protein kinase binding; transmembrane receptor activity; zinc ion binding

Crystallographic structure of the V-set and C2 domains of human CD4.



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