

32-20557: Recombinant Human sCD4(Discontinued)

Alternative Name : Cluster determinant 4, T-cell surface glycoprotein CD4, Interleukin IL-16 receptor, T-cell surface antigen T4/Leu-3, Leu-3(a, b), OKT4(a-f), L3T4 (mouse)

Description

Source:CHO cells

Cluster determinant 4 (CD4), a type I transmembrane glycoprotein of the immunoglobulin family of receptors, plays an integral role in signal transduction and T cell differentiation, development and activation. CD4 is constitutively expressed on the surface of various immune cells, including monocytes, macrophages, eosinophils, dendritic cells, and most prominently T lymphocytes, where it functions as an essential co-receptor and co-ligand for T cell receptor (TCR) and major histocompatibility complex class II (MHC-II) molecules. Ligation by MHC-II molecules on the surface of antigen-presenting cells can serve to influence adaptive immunity by facilitating helper T cell activation and macrophage differentiation, while ligation by proinflammatory cytokine IL-16 can contribute to innate immunity by chemoattracting CD4-expressing peripheral immune cells along an IL-16 gradient for their recruitment and activation at sites of inflammation. The protean functionality of CD4 extends past immunity as CD4 also notably serves as the major receptor for HIV-1 and human herpes virus 7 (HHV-7) infections. During HIV pathogenesis, CD4 acts instrumentally as a high-affinity entry receptor for the internalization of HIV-1 following binding of the viral envelope glycoprotein gp120 to CD4's extracellular domain. The CHO cell-derived Recombinant Human sCD4 is a monomeric glycoprotein of 371 amino acid residues, which correspond to the extracellular CD4 domain, and a calculated molecular weight of 41.3 kDa. As a result of glycosylation, Recombinant Human sCD4 migrates with an apparent molecular mass of approximately 45-55 kDa by SDS-PAGE Gel analysis, under reducing conditions.

Product Info

Amount : 10 µg / 50 µg

Purification : Purity: >= 95% by SDS-PAGE gel and HPLC analyses.

Content : This recombinant protein is supplied in lyophilized form.

Amino Acid : KKVVLGKKGD TVELTCTASQ KKSIOQHWKN SNQIKILGNQ GSFLTQGPSK LNDRADSRRS LWDQGNFPLI
IKNLKIEDSD TYICEVEDQK EEVQLLVFGL TANS DTHLLQ GQSLTLTLES PPGSSPSVQC RSPRGKNIQG
GKTL SVSQLE LQDSGTWTCT VLQNQKKVEF KIDIVVLA FQ KASSIVYKKE GEQVEFSFPL AFTVEKLTGS
GELWWQAERA SSSKSWITFD LKNKEVSVKR VTQDPKLQMG KKLPLHLTLP QALPQYAGSG NLTLALEAKT
GKLHQEVNLV VMRATQLQKN LTCEVWGPTS PKLMLSLKLE NKEAKVSKRE KAVWVLNPEA
GMWQCLLSDS GQVLLESNIK VLPTWSTPVQ P

Application Note

Determined by its ability to binds $\tilde{\Delta}$ HeLa $\tilde{\Delta}$ cells expressing cell-surface MHC-II molecules.