CD4 Protein, Ferret (HEK293, His)

Cat. No.:	HY-P72900
Synonyms:	T-cell surface glycoprotein CD4; T-cell surface antigen T4/Leu-3; CD4
Species:	Others
Source:	HEK293
Accession:	I6LI22 (R26-L401)
Gene ID:	101684487
Molecular Weight:	Approximately 52 kDa

PROPERTIES

AA Sequence	R E V V L G K V G D T A E L P C N G S V G Q N I V F N W M Q S T V K I L G R Q I N F W I T G A S K L K N R V E S K K N L W D Q G S F P L I I K N L E A A D S G V Y F C E V D G K K Q A V E L L V F N L T A K W N T G S S S G G S N I R L L Q G Q Q L T L T V E A P S G S S P S V Q W K G P G N K S K G S G H R L S L S G L D V Q E S G T W T C T I S Q N Q K T V V F N I N I L V L G F Q K V S N T V Y S R E G E Q V K F S F P L N F E I E K L S G E L R W R T E G A P S S L L W S S F T L E N K K L F V K E V H H P R L Q L K E T L P L S F I L P Q A S S Q Y A G S G T L T L S L A K G T L Q Q E V N L V V M R V T K F T N N L T C E V M G P T S P E L T L S L N L E E R A A K V S K Q Q K L V S V V E P E D G T W Q C L L S D K D K V L L A S K V E V L S P V F T K A W P K L
Biological Activity	Measured by the ability of the immobilized protein to support the adhesion of NIH-3T3 mouse embryonic fibroblast cells. When 5×10^4 cells/well are added to CD4-coated plates (1.25μg/mL and 100μL/well), approximately 53.82% will adhere specifically after 30 minutes at 37°C.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

CD4 protein, an integral membrane glycoprotein, assumes a crucial role in immune responses, undertaking diverse functions against both external and internal challenges. In T-cells, its primary function is as a coreceptor for the MHC class II molecule:peptide complex, where class II peptides originate from extracellular proteins, while class I peptides are derived from cytosolic proteins. CD4 interacts concurrently with the T-cell receptor (TCR) and the MHC class II presented by antigen-presenting cells (APCs), leading to the recruitment of the Src kinase LCK to the vicinity of the TCR-CD3 complex. Subsequently, LCK initiates various intracellular signaling pathways by phosphorylating diverse substrates, ultimately resulting in lymphokine production, enhanced motility, adhesion, and the activation of T-helper cells. In other cell types such as macrophages or NK cells, CD4 contributes to differentiation/activation, cytokine expression, and cell migration through a TCR/LCK-independent pathway. Additionally, it plays a pivotal role in the development of T-helper cells in the thymus and triggers the differentiation of monocytes into functional mature macrophages. Notably, CD4 acts as the primary receptor for human immunodeficiency virus-1 (HIV-1), with its down-regulation facilitated by HIV-1 Vpu, and it also serves as a receptor for Human Herpes virus 7/HHV-7[1][2][3].

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA