## **PRODUCT INFORMATION**

Expression system HEK293

**Domain** 26-390aa

**UniProt No.** P01730

NCBI Accession No. NP\_000607.1

#### **Alternative Names**

T-cell surface glycoprotein CD4, CD4, CD4mut, T-cell surface glycoprotein CD4 isoform 1, T-cell surface antigen T4/Leu-3, OKT4D

## **PRODUCT SPECIFICATION**

### **Molecular Weight**

67.7kDa (604aa)

#### Concentration

0.25mg/ml (determined by Absorbance at 280nm)

#### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 40% glycerol

**Purity** 90% by SDS - PAGE

#### **Endotoxin level**

<1 EU per 1ug of protein (determined by LAL method)

### **Biological Activity**

Measured by the ability of the immobilized protein to support the adhesion of HeLa human cervical epithelial carcinoma cells. When cells are added to human CD4 coated plates. The ED50 range  $\leq$  10 ug/ml.

Tag

hlgG-His-Tag

### Application

SDS-PAGE, Bioactivity

#### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

#### Description

CD4, also known as T-cell surface antigen T4/Leu-3, is a member of the immunoglobulin superfamily. It is a glycoprotein expressed on the surface of T helper cells, regulatory T cells, monocytes, macrophages, and dendritic cells. It interacts directly with MHC class II molecules on the surface of the antigen presenting cell via its extracellular domain. It is a co-receptor that assists the T cell receptor (TCR) to activate its T cell following an interaction with an antigen presenting cell. Also, it binds directly to MHC class II molecules on antigen presenting cells. This interaction contributes to the formation of the immunological synapse which is focused around the TCR-MHC class II-antigenic peptide interaction. Recombinant human CD4, fused to hIgG-His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

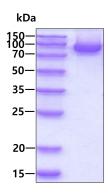
KKVVLGKKGD TVELTCTASQ KKSIQFHWKN SNQIKILGNQ GSFLTKGPSK LNDRADSRRS LWDQGNFPLI IKNLKIEDSD TYICEVEDQK EEVQLLVFGL TANSDTHLLQ GQSLTLTLES PPGSSPSVQC RSPRGKNIQG GKTLSVSQLE LQDSGTWTCT VLQNQKKVEF KIDIVVLAFQ KASSIVYKKE GEQVEFSFPL AFTVEKLTGS GELWWQAERA SSSKSWITFD LKNKEVSVKR VTQDPKLQMG KKLPLHLTLP QALPQYAGSG NLTLALEAKT GKLHQEVNLV VMRATQLQKN LTCEVWGPTS PKLMLSLKLE NKEAKVSKRE KAVWVLNPEA GMWQCLLSDS GQVLLESNIK VLPTW<LEPKS CDKTHTCPPC PAPELLGGPS VFLFPPKPKD TLMISRTPEV TCVVVDVSHE DPEVKFNWYV DGVEVHNAKT KPREEQYNST YRVVSVLTVL HQDWLNGKEY KCKVSNKALP APIEKTISKA KGQPREPQVY TLPPSRDELT KNQVSLTCLV KGFYPSDIAV EWESNGQPEN NYKTTPPVLD SDGSFFLYSK LTVDKSRWQQ GNVFSCSVMH EALHNHYTQK SLSLSPGKHH HHHH>

#### **General References**

Singh SK., et al. (2012) FEBS J. 279:3705-3714. Farrar WL., et al. (1988) Crit Rev Immunol. 8:315-339. Doyle, C. and J.L. Strominger (1987) Nature 330:256-259.

### DATA

#### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

# **Biological Activity**



NKMAXBiO we support you, we believe in your research Recombinant human CD4 protein Catalog Number: ATGP4108

Human CD4 1.6 1.4 • 1.2 1.0 OD 450nm 0.8 0.6 0.4 0.2 0.0 10<sup>1</sup> 10-2 10-1 10<sup>0</sup> 10<sup>2</sup> 10<sup>3</sup> Human CD4 stimulates cell adhesion of the HeLa human cervical epithelial carcinoma cells. The ED50 range  $\leq$  10 ug/ml.

