

Recombinant human CD4 protein

Catalog Number: ATGP4108

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

hIgG-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.

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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

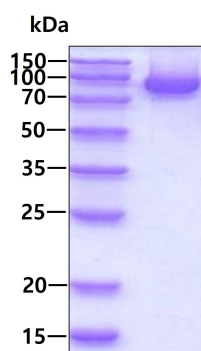
KKVVLGKKGD TVELTCTASQ KKSIFHWKN SNQIKILGNQ GSFLTKGPSK LNDRADSRRS LWDQGNFPLI IKNLKIEDSD
 TYICEVEDQK EEVQLLVFGL TANS DTHLLQ GQSLTLTLES PPGSSPSVQC RSPRGKNIQ GKTLSVSQL E LQDSGTWTCT
 VLQNQKKVEF KIDIVVLA FQ KASSIVYKKE GEQVEFSFPL AFTVEKLTGS GELWWQAERA SSSKSWITFD LKNKEVSVKR
 VTQDPKLQMG KKLPLHLTLP QALPQYAGSG NLTALAEAKT GKLHQEVN LV VMRATQLQKN LTCEVWGPTS PKLMLSLKLE
 NKEAKVSKRE KAVWVLNPEA GMWQCLLSDS GQVLLESNIK VLPTW<LEPKS CDKTHTCPPC PAPELLGGPS VFLFPPKPKD
 TLMISRTPEV TCVVVDVSHE DPEVKFNWYV DGVEVHNAKT KPREEQYNST YRVVSVLTVL HQDWLNGKEY KCKVSNKALP
 APIEKTISKA KGQPREPQVY TLPPSRDEL T KNQVSLTCLV KGFYPSDIAV EWESNGQPEN NYKTTTPVLD 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

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Human CD4 stimulates cell adhesion of the HeLa human cervical epithelial carcinoma cells. The ED50 range ≤ 10 ug/ml.

