Recombinant human CTLA-4 protein

Catalog Number: ATGP3918

PRODUCT INFORMATION

Expression system
Baculovirus

Domain
36-161aa

UniProt No.
P16410

NCBI Accession No.
NP_005205.2

Alternative Names
Cytotoxic T-lymphocyte protein 4 isoform CTLA4-TM precursor, Cytotoxic T-lymphocyte-associated antigen 4, CTLA-4, CD152, CELIAC3, Celiac disease 3, Insulin-dependent diabetes mellitus 12, IDDM12, CD, GSE

Additional Information
ATGP3334 has been replaced with a catalog number ATGP3918.

PRODUCT SPECIFICATION

Molecular Weight
14.6 kDa (135aa)

Concentration
0.25mg/ml (determined by absorbance at 280nm)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol

Purity
> 90% by SDS-PAGE

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

Biological Activity
The activity is determined by the IL-2 ELISA in a using Jurkat human acute T cell leukemia cells. The ED50 range ≤150ng/ml with Human B7-1/CD80.

Tag
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

CTLA-4, also known as cytotoxic T-lymphocyte protein 4, is a member of the immunoglobulin superfamily that is expressed by activated T cells and transmits an inhibitory signal to T cells. It also is a protein receptor that functions as an immune checkpoint and downregulates immune responses. This protein is constitutively expressed in regulatory T cells but only upregulated in conventional T cells after activation a phenomenon which is particularly notable in cancers. It may also function via modulation of cell motility and signaling through PI3 kinase. It has been implicated in several autoimmune diseases, such as systemic lupus erythematosus. Recombinant human CTLA-4, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

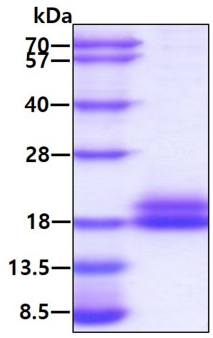
<ADL>KAMHVAQ PAVVLASSRG IASFVCEYAS PGKATEVRVT VLRQADSQVT EVCAATYMMG NELTFLDDSI CTGTSSGNQV NLTIQGLRAM DTGLYICKVE LMYPPPYYLG IGNGTQIYVI DPEPCPDSD<H HHHHH>

General References

Dai F., et al. (2015) Braz J Med Biol Res. 48:629-636.
Ward FJ., et al. (2013) Eur J Immunol. 43:1274-1285.

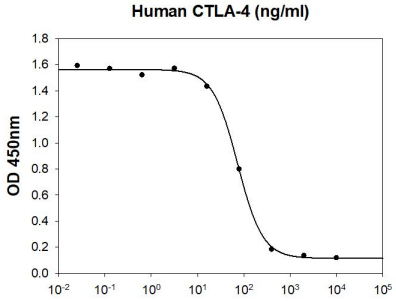
DATA

SDS-PAGE



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

Biological Activity



Human CTLA-4 inhibits Human B7-1/CD80 induced IL-2 secretion of the Jurkat human acute T cell leukemia cells. The ED50 range ≤150 ng/ml.