Human CTLA4 antibody

Catalog Number: ATGA0260

PRODUCT INFORMATION

Catalog number
ATGA0260

Clone No.
AT4C8

Product type
Monoclonal Antibody

UnitProt No.
P16410

NCBI Accession No.
NP_005205

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

PRODUCT SPECIFICATION

Antibody Host
Mouse

Reacts With
Human

Concentration
1mg/ml (determined by BCA assay)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen
Recombinant human CTLA-4 (36-161aa) purified from E. coli

Isotype
IgG1 kappa

Purification Note
By protein-A affinity chromatography

Application
ELISA, WB, ICC/IF, FACS

Usage
The antibody has been tested by ELISA, Western blot, ICC/IF and FACS to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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Storage

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

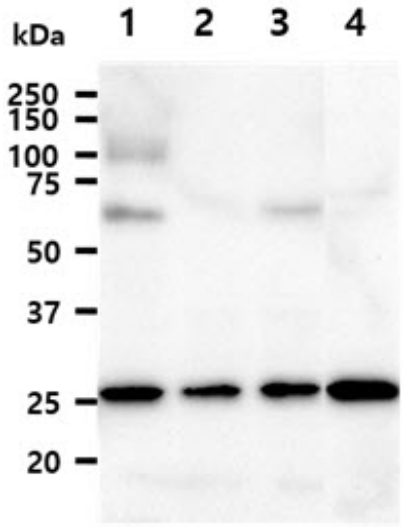
CTLA4 (Cytotoxic T-Lymphocyte Antigen 4), also known as CD152, is a protein receptor that downregulates the immune system. CTLA4 is expressed on the surface of Helper T cells and transmits an inhibitory signal to T cells. CTLA4 is similar to the T-cell co-stimulatory protein, CD28, and both molecules bind to CD80 and CD86, also called B7-1 and B7-2 respectively, on antigen-presenting cells. CTLA4 transmits an inhibitory signal to T cells, whereas CD28 transmits a stimulatory signal. Mutations in CTLA4 have been associated with insulin-dependent diabetes mellitus, Graves' disease, Hashimoto's thyroiditis, celiac disease and other autoimmune diseases.

General References

Dariavach. P., et al. (1988) Eur J Immunol 18(12): 1901-1905.
Waterhouse. P., et al. (1995) Science 270(5238): 985-988.
Magistrelli. G., et al. (1999) Eur J Immunol 29(11): 3596-3602.

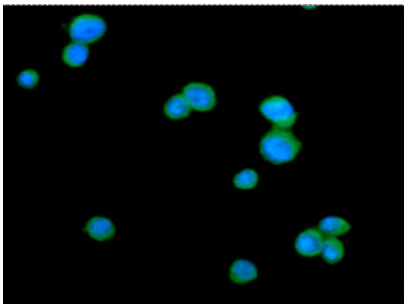
DATA

Western blot analysis (WB)



The tissue and cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CTLA-4 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: Mouse liver tissue lysate
Lane 2.: TF-1 cell lysate
Lane 3.: HepG2 cell lysate
Lane 4.: WiDr cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of CTLA-4 in Jurkat cells. The cell was stained with ATGA0260 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

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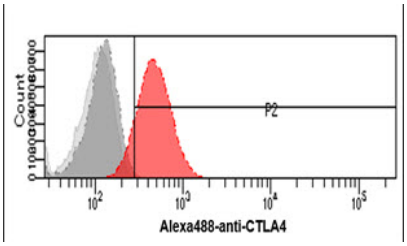
Flow cytometry (FACS)



Flow cytometry analysis of CTLA-4 in HeLa cells. The cell was stained with ATGA0260 at 2-5ug for 1x10^6cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).