



Anti-human B7-2/CD86 Antibody

ORDERING INFORMATION

Catalog Number: AF-141-NA

Lot Numbers: AAF01

Size: 200 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose.

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human B7-2 extracellular domain

Immunogen: Sf21-derived rhB7-2

Ig Type: goat IgG

Applications: Neutralization of bioactivity
Western blot
Flow cytometry
Immunohistochemistry
Direct ELISA

Preparation

Produced in goats immunized with purified, insect cell line Sf21-derived, recombinant human B7-2 extracellular domain (rhB7-2). B7-2 specific IgG was purified by human B7-2 affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Endotoxin Level

< 0.1 EU per 1 µg of the antibody as determined by the LAL method.

Reconstitution

Reconstitute with sterile PBS. If 1 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to block B7-2 (CD86)-mediated costimulation of T cells. Based on direct ELISA and western blot results (non-reducing conditions), this antibody shows less than 5% cross-reactivity with rhB7-2. Additionally, in direct ELISAs this antibody shows no cross-reactivity with other cytokines tested.¹

Neutralization of Human B7-2 (CD86) Bioactivity

The exact concentration of antibody required to neutralize cell surface B7-2 mediated activity is dependent on cell type, growth conditions and the type of activity studied. To provide a guideline, R&D Systems has determined the neutralization dose for this antibody under a specific set of conditions. The **Neutralization Dose₅₀ (ND₅₀)** for this antibody is defined as that concentration of antibody required to yield one-half maximal inhibition of the cell surface B7-2 mediated activity on a responsive cell line.

The ND₅₀ for this lot of anti-human B7-2 antibody was determined to be approximately 0.1 - 0.3 µg/mL for inhibiting Raji cell surface B7-2-mediated IL-2 production by Jurkat cells in the presence of 10 µg/mL PHA. The specific conditions are described in the figure legends.

Additional Applications

For indirect immunofluorescence staining of human cells in flow cytometry, this antibody can be used at 2 - 4 µg/10⁶ cells.

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human B7-2. The detection limit for rhB7-2 is approximately 5 ng/lane and 1 ng/lane under non-reducing and reducing conditions, respectively.

Immunohistochemistry - This antibody will detect B7-2 in paraffin-embedded tissue sections. The working dilution is 15 µg/mL. For chromogenic detection of labeling, R&D Systems' Cell and Tissue Staining Kits (CTS Series) are recommended.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human B7-2. The detection limit for rhB7-2 is approximately 0.3 ng/well.

Optimal dilutions should be determined by each laboratory for each application.

For immunohistochemistry images, please refer to our website at

<http://www.rndsystems.com/go/ihc>.

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