

Product Information

MONOCLONAL ANTI-HUMAN CD86 (B7-2)

CLONE B72-H2

Purified Mouse Immunoglobulin

Product Number **C 9854**

Product Description

Monoclonal Anti-Human CD86 (B7-2) (mouse IgG2a isotype) is produced by immunizing mice with purified recombinant extracellular domain of human CD86.¹ The antibody is purified from tissue culture supernatant using Protein G affinity chromatography.

Monoclonal Anti-Human CD86 (B7-2) recognizes the extracellular domain of human CD86 (B7-2). It does not detect the extracellular domain of CD80.

CD86 (B7-2) and CD80 (B7-1) are ligands for the receptors, CD152 (CTLA-4) and CD28, and members of the immunoglobulin superfamily.² CD86 and CD80, together with their receptors, constitute one of the dominant co-stimulatory pathways that regulate T- and B-cell responses. CD86 acts as a co-stimulatory molecule in eliciting T cell help during antigen presentation. Antigen presentation in the absence of sufficient co-stimulation involving CD86/CD80 can induce tolerance. CD86 plays a role distinct from CD80 in T helper cell differentiation.

cDNAs for both B7-1 and B7-2 have been isolated from human sources.² Native human B7-2 is a 329 amino acid protein containing a putative 23 amino acid signal peptide, a 224 amino acid extracellular domain, a 21 amino acid transmembrane domain, and a 61 amino acid cytoplasmic domain. Human and mouse B7-2 share 50 % amino acid sequence identity.³

CD86 is rapidly induced on the surface of activated B cells, T cells, or monocytes and expressed at high levels in dendritic cells. It is also expressed in malignant Hodgkin and Reed-Sternberg (H-RS) cells in Hodgkin's disease.

Both human B7-1 and B7-2 map to chromosome 3q13-q23.⁴

Reagent

Monoclonal Anti-Human CD86 (B7-2) is supplied as 0.5 mg/ml of antiserum in phosphate buffered saline, pH 7.4, containing 0.08 % sodium azide.

Storage/Stability

Store at 2 °C to 8 °C. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Product Profile

Monoclonal Anti-Human CD86 (B7-2) recognizes human CD86 by various immunochemical techniques including immunohistochemistry (frozen sections) and flow cytometry.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentrations by titration test.

References

1. Azuma, M., et al., *Nature*, **366**, 76 (1993).
2. Freeman, G.J., et al., *Science*, **262**, 909 (1993).
3. Freeman, G.J., et al., *J. Exp. Med.*, **178**, 2185 (1993).
4. Fernandez-Ruiz, E., et al., *Eur. J. Immunol.*, **25**, 1913 (1995).

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