

# Monoclonal Antibody CD86

PN IM2728 – Purified – Freeze-dried – 0.2 mg – Clone HA5.2B7

**For Research Use Only. Not for use in diagnostic procedures.**

## SPECIFICITY

The CD86 antigen (B7-2, B70) is a single-chain transmembrane glycoprotein, structurally similar to CD80 (B7-1) (1, 2). Its molecular weight is 80 kDa, under reducing conditions. The extracellular region is composed of one V-type and one C-type Ig-like domains. There are 8 potential sites for N-glycosylation. The cytoplasmic tail has 3 potential sites for protein kinase C phosphorylation (3, 4). CD86 shares with CD80 the same co-receptors on T cells; CD28 and CD152 (CTLA-4). CD86 binds to CD152 with a 20-100-fold higher affinity than to CD28 (5). CD86 and CD80 have a critical role in one costimulatory pathway involved in the prevention of antigen-specific T-cell tolerance (anergy), mediated by ligation of CD28 on T cells by its ligands, CD86 and CD80 on antigen-presenting cells (6, 7). CD86 is constitutively expressed by interdigitating dendritic cells, peripheral blood monocytes, activated B cells, and, at a lower level, by peripheral blood dendritic cells (1, 2). On lymphocytes, CD86 appears as a B-cell activation antigen. It is preferentially expressed by memory B cells and germinal B center cells, but not on plasma cells (3). Its expression can be up-regulated by activation through surface immunoglobulin, MHC-class II molecules, and CD40 triggering, or by PMA treatment with ionomycin. Also, PHA-activated T cells show a weak expression of CD86 on CD4-positive cells, and a consistent one on CD8-positive cells (4).

## REAGENT

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<b>Clone</b>	HA5.2B7
<b>Isotype</b>	IgG2b
<b>Species</b>	Mouse
<b>Immunogen</b>	B7.2 transfected CHO cells
<b>Source</b>	Ascites fluid
<b>Purification</b>	Ion exchange or affinity chromatography
<b>Buffer</b>	1 mg/mL bovine serum albumin in phosphate-buffered saline

## APPLICATION

Studies of CD86 positive cells  
Flow cytometry

## STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be

handled as if capable of transmitting infection and disposed of with proper precautions.

2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use antibody beyond the expiration date on the label.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Use good laboratory practices when handling this reagent.

## STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label. No preservative has been added.

## REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).

The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.

The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.

In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

## PROCEDURE

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

## SELECTED RESEARCH

### REFERENCES

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2. Engel, P., Gribben, J.G., Freeman, G.J., Zhou, L.J., Nozawa, Y., Abe, M., Nadler, L.M., Wakasa, H., Tedder, T.F., "The B7-2 (B70) co-stimulatory molecule expressed by monocytes and activated B lymphocytes is the CD86 differentiation antigen", 1994, *Blood*, 84, 1402-1407.
3. Hardie, D., L., Casamayor, M., Johnson, G.D., Hill, D., Van Schijndel, G., Van Lier, R., Khan, M., MacLennan, I. C.M., "CD86 workshop panel report", 1997, *Leucocyte Typing VI, White Cell Differentiation*

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## PRODUCT AVAILABILITY

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