

CD86 Antibody [Clone BU63]

Purified Mouse Monoclonal Antibody

Catalog # AH10096

Product Information

Application	FC
Primary Accession	P42081
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1, kappa
Clone Names	BU63
Calculated MW	37682

Additional Information

Gene ID	942
Other Names	T-lymphocyte activation antigen CD86, Activation B7-2 antigen, B70, BU63, CTLA-4 counter-receptor B72, FUN-1, CD86, CD86, CD28LG2
Target/Specificity	ARH-77 (B-lymphoblastoid cell line)
Application Note	Flow Cytometry 2.5ul (0.5ug) per test per one million cells.
Format	0.5 ml at 200ug/ml; Conjugated to PE
Storage	Store at 2 to 8°C. Antibody is stable for 24 months.
Precautions	CD86 Antibody [Clone BU63] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD86
Synonyms	CD28LG2
Function	Costimulatory molecule that belongs to the immunoglobulin superfamily that plays an important role in T-lymphocyte activation (PubMed: 12196291 , PubMed: 7694363). Acts as the primary auxiliary signal augmenting the MHC/TCR signal in naive T-cells by acting as a ligand for the CD28 receptor which is constitutively expressed on the cell surface of T-cells (PubMed: 12196291 , PubMed: 7694363). May play a critical role in the early events of T-cell activation and costimulation of naive T-cells, such as deciding between immunity and anergy that is made by T-cells within 24 hours after

activation (PubMed:[7527824](#)). Also involved in the regulation of B cells function, plays a role in regulating the level of IgG(1) produced. Upon CD40 engagement, activates NF-kappa-B signaling pathway via phospholipase C and protein kinase C activation (By similarity). Also acts as an inhibitor of T-cell activation by acting as a ligand for CTLA4, a decoy receptor, thereby blocking CD28-mediated T-cell priming (PubMed:[11279501](#)).

Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Expressed on the surfaces of antigen-presenting cells.

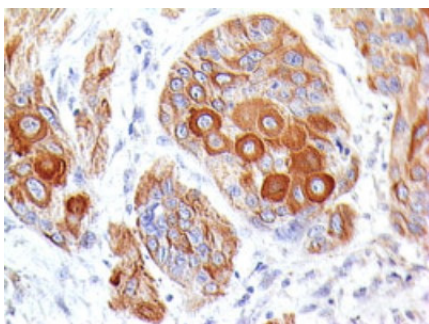
Background

Recognizes a protein of 70kDa, which is identified as CD86 (HLDA V; WS Code BP BP072. HLDA V; WS Code A A109. HLDA VI; WS Code BP 95. HLDA VI; WS Code B CD86.9). CD86 is a type I transmembrane glycoprotein and a member of the immunoglobulin superfamily of cell surface receptors. It is expressed at high levels on resting peripheral monocytes and dendritic cells and at very low density on resting B and T lymphocytes. CD86 expression is rapidly upregulated by B cell specific stimuli with peak expression at 18 to 42 hours after stimulation. CD86, along with CD80/B71, is an important accessory molecule in T cell co-stimulation via its interaction with CD28 and CD152/CTLA4. Since CD86 has rapid kinetics of induction, it is believed to be the major CD28 ligand expressed early in the immune response. It is also found on malignant Hodgkin and Reed Sternberg (HRS) cells in Hodgkin's disease.

References

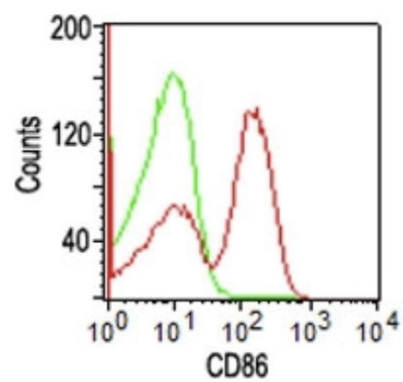
1. Engel P, Gribben JG, Freeman GJ, Zhou LJ, Nozawa Y, Abe M, Nadler LM, Wakasa H, Tedder TF: The B7-2 (B70) costimulatory molecule expressed by monocytes and activated B lymphocytes is the CD86 differentiation antigen. *Blood*. 1994;84(5):1402-7.
2. Caux C, Vanbervliet B, Massacrier C, Azuma M, Okumura K, Lanier LL, Banchereau J: B70/B7-2 is identical to CD86 and is the major functional ligand for CD28 expressed on human dendritic cells. *J Exp Med*. 1994;180(5):1841-7.
3. Mauri D, Wyss-Coray T, Gallati H, Pichler WJ: Antigen-presenting T cells induce the development of cytotoxic CD4+ T cells. I. Involvement of the CD80-CD28 adhesion molecules. *J Immunol*. 1995;155(1):118-27.
4. Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
5. Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).

Images



Formalin-fixed, paraffin-embedded human esophageal tumor stained with CD86 MAb (BU63).

FCM staining of human PBMCs using CD86 MAb (BU63).



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