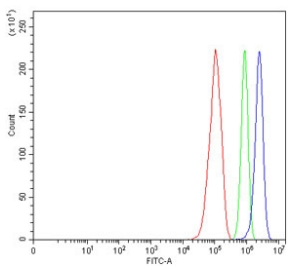
CD83 Antibody Rabbit Polyclonal (RQ7310)

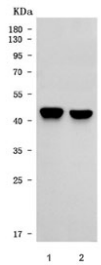
Catalog No.	Formulation	Size
RQ7310	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q01151
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells Direct ELISA : 0.1-0.5ug/ml
Limitations	This CD83 antibody is available for research use only.



Flow cytometry testing of human RT4 cells with CD83 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= CD83 antibody.



Western blot testing of human 1) Daudi and 2) Jurkat cell lysate with CD83 antibody. Expected molecular weight: ~23-60 kDa depending on level of glycosylation.

Description

CD83 antibody recognizes CD83 molecule, a type I transmembrane glycoprotein belonging to the immunoglobulin superfamily. CD83 is primarily expressed on the surface of mature dendritic cells and is considered a hallmark marker of dendritic cell activation and maturation. In addition to dendritic cells, CD83 expression has been reported in activated B cells, T cells, and certain epithelial cells under inflammatory conditions. CD83 antibody is therefore widely used in research focused on immune activation, antigen presentation, and regulation of adaptive immune responses.

The CD83 gene is located on chromosome 6p23 and encodes a protein containing a single extracellular immunoglobulin-like domain, a transmembrane region, and a short cytoplasmic tail involved in intracellular signaling. CD83 plays an important role in modulating immune responses by influencing T cell activation, promoting regulatory T cell development, and contributing to peripheral tolerance. A soluble form of CD83 has also been described and is thought to possess immunomodulatory properties. CD83 antibody supports studies investigating dendritic cell biology, immune tolerance mechanisms, and cytokine-mediated signaling pathways.

In normal tissues, CD83 expression is most prominent in lymphoid organs such as lymph node, tonsil, and spleen, where mature dendritic cells reside in T cell-rich areas. Upregulation of CD83 occurs following exposure to inflammatory stimuli, pathogen-associated molecular patterns, and cytokines that drive dendritic cell maturation. CD83 antibody is therefore valuable for examining immune activation states and the functional status of antigen-presenting cells in research settings.

Aberrant CD83 expression has been reported in certain hematologic malignancies, including Hodgkin lymphoma and some B cell lymphomas, as well as in solid tumors where immune cell infiltration is present. CD83 antibody can assist in characterizing tumor microenvironments by identifying activated dendritic cells and evaluating immune cell composition. Because CD83 is closely associated with dendritic cell maturation, it serves as a useful marker for assessing immune responses in cancer immunology and transplantation research.

CD83 Antibody Rabbit Polyclonal provides sensitive detection of CD83 protein in research applications. As such, CD83 antibody is a versatile tool for studying dendritic cell maturation, immune regulation, and inflammatory processes.

Application Notes

Optimal dilution of the CD83 antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids T20-E144) was used as the immunogen for the CD83 antibody.

Storage

After reconstitution, the CD83 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.