Antibodies

Anti-Human CD83 Antibody, Clone HB15e

Mouse monoclonal IgG1 antibody against human, rhesus, cynomolgus CD83, unconjugated

Catalog #60107	100 µg	0.5 mg/mL
#60107.1	25 µg	0.5 mg/mL

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Product Description

The HB15e antibody reacts with CD83, an ~45 kDa type I transmembrane glycoprotein and member of the Siglec (sialic acid-binding immunoglobulin-like lectin) protein family, containing an extracellular V-type Ig-like domain and a C-terminal cytoplasmic tail. A soluble form of CD83 has also been identified. CD83 is expressed predominantly on circulating and tissue dendritic cells, including Langerhan cells and interdigitating reticulum cells. It is expressed weakly on activated lymphocytes and may also be found on neutrophils, monocytes and macrophages. Expression of CD83 is typically transient, except on dendritic cells, and dependent on the cell's state or maturation stage. CD83 expression correlates with upregulation of HLA class II antigen and serves as a marker for dendritic cell maturation and activation. Its function, though ill-defined, is essential for the development and maintenance of the immune system and evidence suggests it may be involved in cell adhesion and signaling, antigen presentation, and activation and proliferation of lymphocytes. The soluble form of CD83 appears to be immunosuppressive, blocking T cell activation and inhibiting dendritic cell maturation. The epitope on CD83 bound by the HB15e antibody reportedly overlaps with that of antibody 1E11.

Target Antigen Name:	CD83
Alternative Names:	B-cell activation protein, BL11, HB15
Gene ID:	9308
Species Reactivity:	Human, Rhesus, Cynomolgus, Baboon, Chimpanzee, Pigtailed Macaque
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	HB15e
Isotype:	IgG1, kappa
Immunogen:	Human CD83-transfected African green monkey COS-7 cells
Conjugate:	Unconjugated

Applications

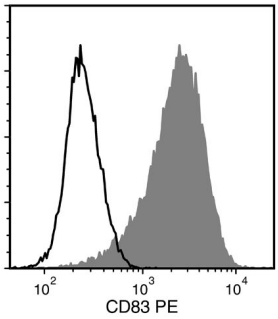
Verified:	FC
Reported:	FC, IHC, Immunoblotting (dot blot of non-denatured protein; not WB)
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human CD14 Positive Selection Kit (Catalog #18058), and for analyzing human monocyte-derived mature dendritic cells cultured using StemSpan™-ACF medium (Catalog #09805).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 0.5 µg per 1 x 10^6 cells in 100 µL volume or 100 µL of whole blood. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of dendritic cells derived from human peripheral blood mononuclear cells (PBMCs). Cells were processed with the EasySep™ Human CD14 Positive Selection Kit and labeled with Anti-Human CD83 Antibody, Clone HB15e, followed by a rat anti-mouse IgG1 antibody, PE (filled histogram), or Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21 (Catalog #60070), followed by a rat anti-mouse IgG1 antibody, PE (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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