

Antibodies

Anti-Human CD63 Antibody, Clone H5C6

Mouse monoclonal IgG1 antibody
against human, rhesus, cynomolgus
CD63, unconjugated

Catalog #100-0139

100 µg



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Product Description

The H5C6 antibody reacts with an extracellular epitope on human CD63, a 30 - 60 kDa type III lysosomal glycoprotein and member of the tetraspanin family. Tetraspanins contain four transmembrane domains, two extracellular loops, and short cytoplasmic N- and C-termini. CD63 associates with several integrins, co-receptors, and other proteins to form multimolecular complexes in the plasma membrane called tetraspanin-enriched microdomains. The protein is involved in several cellular processes, including cell activation, adhesion, differentiation, and tumor invasion. CD63 exhibits broad expression, including on the surface of monocytes, macrophages, activated basophils, fibroblasts, smooth muscle cells, and activated platelets. CD63 is found in late endosomes, lysosomes, and secretory vesicles, and cycles among these compartments. It is also a marker characteristic of extracellular vesicles (EVs). CD63 has been implicated in tumor progression, and a deficiency of the protein is associated with Hermansky-Pudlak syndrome, a rare autosomal recessive disorder presenting with platelet dysfunction and defects in lysosomal storage.

Target Antigen Name:	CD63
Alternative Names:	gp55, Granulophysin, LIMP, LAMP-3, Melanoma-associated antigen (ME491), MLA1, OMA81H, PItgp40, Tetraspanin-30
Gene ID:	967
Species Reactivity:	Human, Rhesus, Cynomolgus, Chimpanzee, Baboon, African Green Monkey, Capuchin Monkey
Host Species:	Mouse (BALB/c)
Clonality:	Monoclonal
Clone:	H5C6
Isotype:	IgG1, kappa
Immunogen:	Human adherent splenocytes
Conjugate:	Unconjugated

Applications

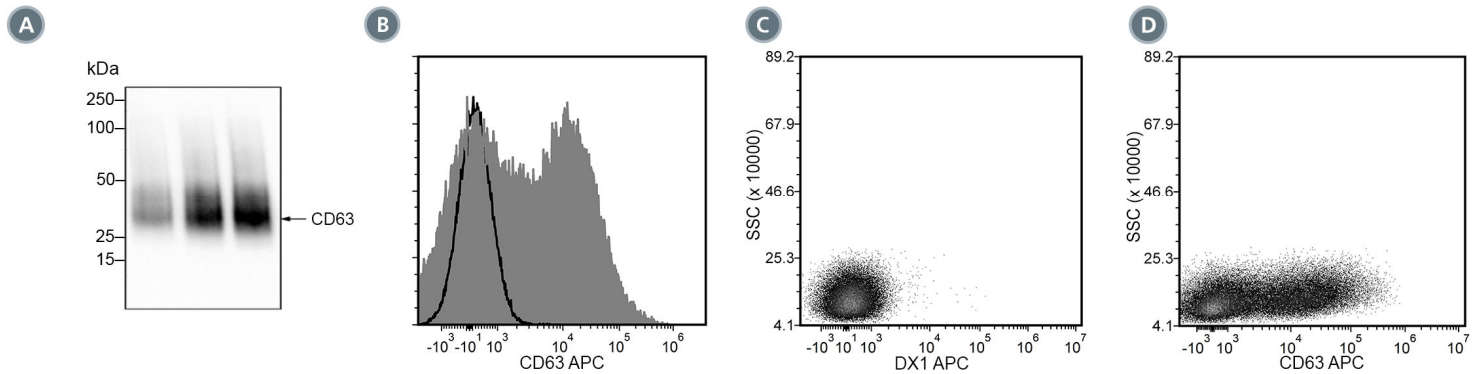
Verified:	FC, WB
Reported:	ELISA, FC, ICC, IF, IHC, Immunoaffinity chromatography, IP, WB
Special Applications:	This antibody clone has been verified for purity assessments of extracellular vesicles isolated with EasySep™ Extracellular Vesicle Human Positive Selection Kits.

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. Endotoxin level < 0.01 EU (< 0.001 ng) per µg of protein, as determined by kinetic Limulus amoebocyte lysate (LAL) analysis.
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Stable until expiry date (EXP) on label.
Directions for Use:	The suggested use of this antibody is: FC, ≤ 1.0 µg per 1 x 10 ⁶ cells in 100 µL or per 100 µL of whole blood; WB, 1 - 2 µg/mL. It is recommended that the antibody be titrated for optimal performance for each application. For lot-specific concentration, refer to the Certificate of Analysis (CoA).

Data



(A) Western blot analysis of extracellular vesicles (EVs) with Anti-Human CD63 Antibody, Clone H5C6. EVs were isolated from mesenchymal stromal cell-conditioned medium using a 2 mL EV size exclusion chromatography column. Lanes (left to right) were loaded with isolated fractions 9, 10, and 11, respectively.

(B) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) stimulated with phorbol myristate acetate (PMA) and ionomycin, then labeled with Anti-Human CD63 Antibody, Clone H5C6, followed by a goat anti-mouse IgG1 antibody, APC (filled histogram), or Anti-Dextran Antibody, Clone DX1 (Catalog #60026) as an isotype control, followed by a goat anti-mouse IgG1 antibody, APC (solid line histogram). Viable lymphocytes were gated for analysis.

(C) Flow cytometry analysis of human PBMCs labeled with Anti-Dextran Antibody, Clone DX1 (Catalog #60026) as an isotype control, followed by a goat anti-mouse IgG1 antibody, APC.

(D) Flow cytometry analysis of human PBMCs labeled with Anti-Human CD63 Antibody, Clone H5C6, followed by a goat anti-mouse IgG1 antibody, APC.

Related Products

For related products, including EasySep™ Extracellular Vesicle Selection Kits and antibodies, visit www.stemcell.com or contact us at techsupport@stemcell.com.

References

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- Hildreth JE et al. (1991) Characterization of a novel self-associating Mr 40,000 platelet glycoprotein. *Blood* 77(1): 121–32. (FC, IHC, Immunoaffinity chromatography, IP)

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