Technical Data Sheet

Purified Mouse Anti-Human CDw93 (C1qRp)

Product Information

Material Number:551087Alternate Name:C1qRpSize:0.1 mgConcentration:0.5 mg/mlClone:R139

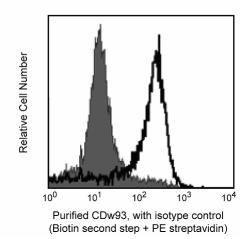
 Isotype:
 Mouse IgG2b, κ

 Reactivity:
 QC Testing: Human

Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The immunogen used to raise R139 was a preparation of CDw93 protein. CDw93 is also known as C1q-binding protein. Human C1qRp is a 631 amino acid protein (~66.5 kD) protein that is highly expressed on monocytes/macrophages, neutrophil granulocytes but not on T and B lymphocytes. C1qRp binds C1q, the recognition subunit of the first component (C1) of the complement pathway, as well as MBL (Mannose-binding-lectin) and SPA (Pulmonary Surfactant Protein A). Human C1qRp is involved in the C1q-mediated enhancement of phagocytosis. R139 is suitable to detect C1qRp expression on cells of myeloid lineage by flow cytometry, C1qRp in cellular lysates by Western blotting or immunoprecipitation. In addition, R139 neutralizes C1q-mediated enhancement of phagocytosis, as reported. CDw93 (C1qRp) has been reported to define a human stem cell population with hematopoietic and hepatic potential.



Expression of C1qRp by unstimulated human peripheral blood mononuclear cells (PBMC). Human PBMC were stained with mouse anti-human C1qRp antibody (Cat. No. 551087). A histogram overlay shows specific cell staining of gated CD14 positive cells with R139 followed by biotin anti-mouse secondary antibody and streptavidin-PE (Cat. No. 554061) compared to isotype control.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at 4°C.

Application Notes

Application

Flow cytometry	Routinely Tested
Western blot	Reported
Neutralization	Reported

Neutralization Activity:

R139 has been reported to neutralize C1q-mediated enhancement of phagocytosis. Cat. No. 552954 is recommended for this application.

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Recommended Assay Procedure:

Immunofluorescent Staining and Flow Cytometric Analysis: The staining technique and blocking controls are described in detail by C. Prussin and D. Metcalfe. A suitable mouse IgG2b isotype control for assessing the level of background staining on human cells is recommended: Cat. No. 555740, use at comparable concentrations to antibody of interest.

Western Blotting and Immunoprecipitation: When run under non-reducing conditions, C1qRp migrates as a 100 kDa protein; due to high levels of glycosylation C1qR migrates as 126 kDa under reducing conditions. The R139 antibody is suitable to detect C1qRp in western blots and by immunprecipitation as described in the literature. Reactivity of the antibody with the reduced protein is dramatically decreased.

Suggested Companion Products

Catalog Number	Name	Size	Clone	
555740	Purified Mouse IgG2b κ Isotype Control	0.1 mg	27-35	
553999	Biotin Goat Anti-Mouse Ig (Multiple Adsorption)	0.5 mg	Polyclonal	
554061	PE Streptavidin	0.5 mg	(none)	
552954	Purified NA/LE Mouse Anti-Human CDw93 (C1qRp)	0.5 mg	R139	

Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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Nepomuceno RR, Henschen-Edman AH, Burgess WH, Tenner AJ. cDNA cloning and primary structure analysis of C1qR(P), the human C1q/MBL/SPA receptor that mediates enhanced phagocytosis in vitro. *Immunity*. 1997; 6(2):119-129.(Clone-specific)

Nepomuceno RR, Ruiz S, Park M, Tenner AJ. C1qRP is a heavily O-glycosylated cell surface protein involved in the regulation of phagocytic activity. *J Immunol.* 1999; 162(6):3583-3589.(Clone-specific)

Nepomuceno RR, Tenner AJ. C1qRP, the C1q receptor that enhances phagocytosis, is detected specifically in human cells of myeloid lineage, endothelial cells, and platelets. *J Immunol.* 1998; 160(4):1929-1935.(Clone-specific)

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