Datasheet for ABIN2191826

anti-C5a Receptor antibody

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Overview

Quantity:	100 µg
Target:	C5a Receptor (C5AR)
Reactivity:	Mouse
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This C5a Receptor antibody is un-conjugated
Application:	Flow Cytometry (FACS), Functional Studies (Func), Immunofluorescence (IF)

Product Details

Clone:	20-70
Sterility:	0.2 µm filtered

Target Details

Target:	C5a Receptor (C5AR)
Alternative Name:	c5a Receptor (C5AR Products)
Background:	The monoclonal antibody 20/70 recognizes the mouse receptor for C5a (CD88). The mouse anaphylatoxin complement factor C5a, a split product of C5, is one of the most potent inflammatory chemoattractants and interacts with two C51 receptors, C5aR and C5L2. Most of the C5a effects are mediated through C5aR. C5aR is known to be crucial in the initiation of acute inflammatory responses. C5a receptor is a seven transmembrane GTP-binding-protein-coupled receptor that belongs to the rhodopsin supergene family. The 45 kDa C5a receptor is

Target Details

expressed by leukocytes such as neutrophils, eosinophils, basophils, monocytes, dendritic cells and mast cells. C5aR can be expressed on both immune and nonimmune cells. Nonimmune cells expressing C5aR include vascular endothelial cells, cardiomyocytes and bronchial epithelial cells. Signaling of C5aR involves intracellular calcium mobilization and activation of among others protein kinase B (PKB) and protein phospholipase D (PLD) pathways. High C5aR expression levels have been associated with the pathogenesis of many inflammatory conditions, autoimmune and neurodegenerative diseases like rheumatoid arthritis, multiple sclerosis, atherosclerosis and inflammatory bowel diseases. In vivo blockade of C5aR greatly reduces inflammatory injury. The monoclonal antibody 20/70 has been used in functional studies and is capable to prevent the binding of C5a to its receptor. Aliases Complement component 5a receptor, C5aR, CD88, C5r1, C5aR1, rhodopsin-like receptor, C5a anaphylatoxin chemotactic receptor Immunogen RBL-2H3 transfectantsexpressing murine C5aR on the cell surface.

Application Details

Application Notes:	For flow cytometry, dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50. For functional studies, in vitro dilutions have to be optimized in user's experimental setting. 1
Restrictions:	For Research Use only

Handling

Buffer:	PBS, containing 0.1 % bovine serum albumin.
Storage:	4 °C
Storage Comment:	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for at least one year. The exact expiry date is indicated on the label.

Publications

Product cited in:	Rittirsch, Flierl, Nadeau, Day, Huber-Lang, Mackay, Zetoune, Gerard, Cianflone, Köhl, Gerard, Sarma, Ward: "Functional roles for C5a receptors in sepsis." in: **Nature medicine**, Vol. 14, Issue 5, pp. 551-7, (2008) (PubMed).
	Gueler, Rong, Gwinner, Mengel, Bröcker, Schön, Greten, Hawlisch, Polakowski, Schnatbaum,

Menne, Haller, Shushakova: "Complement 5a receptor inhibition improves renal allograft survival." in: **Journal of the American Society of Nephrology : JASN**, Vol. 19, Issue 12, pp. 2302-12, (2008) (PubMed).

Chen, Mirtsos, Suh, Lu, Lin, McKerlie, Lee, Baribault, Tian, Yeh: "C5L2 is critical for the biological activities of the anaphylatoxins C5a and C3a." in: **Nature**, Vol. 446, Issue 7132, pp. 203-7, (2007) (PubMed).

Godau, Heller, Hawlisch, Trappe, Howells, Best, Zwirner, Verbeek, Hogarth, Gerard, Van Rooijen, Klos, Gessner, Köhl: "C5a initiates the inflammatory cascade in immune complex peritonitis." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 173, Issue 5, pp. 3437-45, (2004) (PubMed).

Soruri, Kim, Kiafard, Zwirner: "Characterization of C5aR expression on murine myeloid and lymphoid cells by the use of a novel monoclonal antibody." in: **Immunology letters**, Vol. 88, Issue 1, pp. 47-52, (2003) (PubMed).

There are more publications referencing this product on: Product page

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