Datasheet for ABIN2191948
anti-C5 antibody

3 Publications

Go to Product page

Overview

Quantity:	100 µg
Target:	C5
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This C5 antibody is un-conjugated
Application:	Western Blotting (WB), Immunoassay (IA)

Product Details

Clone:	557
Sterility:	0.2 µm filtered

Target Details

Target:	C5
Alternative Name:	c5/c5a (C5 Products)
Background:	The monoclonal antibody 557 recognizes an epitope of complement factor 5 (C5) and C5a. The complement system is composed of over 30 proteins, activated in response to tissue injury, invading pathogens or other foreign surfaces. The complement pathways can be divided in the activation pathways and lytic pathway. The activation pathways lead via C3 to the cleavage of the fifth complement component C5. C5a was first described as a cleavage product of C5 with chemotactic and anaphylatoxic properties. Further characterization revealed that C5a is an

Target Details

	essential part of the innate immune response and evidence now suggests that it may also play a role in adaptive immunity. Complement fragment C5a is a 74 residue pro-inflammatory polypeptide. C5a induces smooth muscle contraction, increases vascular permeability, causes degranulation of mast cells and basophils, and release of lysosomal enzymes. In addition C5a stimulates the directed migration of neutrophils, eosinophils, basophils and monocytes. C5a binds to at least two seven-transmembrane domain receptors, C5aR (C5R1, CD88) and C5L2 (gpr77), expressed ubiquitously on a wide variety of cells but particularly on the surface of immune cells like macrophages, neutrophils and T cells. The former is a well-established receptor that initiates G-protein-coupled signaling via mitogen-activated protein kinase pathways, thereby by inducing synthesis of cytokines such as TNF-alpha, IL-1beta, IL-6 and IL-8. Its in vivo blockade greatly reduces inflammatory injury. Much less is known about C5L2, occupancy of which by C5a does not initiate increased intracellular Ca(2+).The widespread expression of C5a receptors throughout the body allows C5a to elicit a broad range of effects. Thus, C5a has been found to be a significant pathogenic driver in a number of immuno-inflammatory diseases. Nowadays C5a is also implicated in non-immunological functions associated with developmental biology, CNS development and neurodegeneration, tissue regeneration, and haematopoiesis. The antibody 557 is capable to inhibit the binding of C5a to the C5a receptor through a competitive mechanism, it does not block the cleavage of C5 into C5a and C5b. Aliases CPAMD4, FLJ17816, FLJ17822, MGC142298 Immunogen BALB/c mice were immunized with human C5
Pathways:	Complement System, Carbohydrate Homeostasis

Application Details

Application Notes:	For Western blotting, 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

Handling

at least one year. The exact expiry date is indicated on the label.

Publications

Product cited in:

Kola, Baensch, Bautsch, Klos, Köhl: "Analysis of the C5a anaphylatoxin core domain using a C5a phage library selected on differentiated U937 cells." in: **Molecular immunology**, Vol. 36, Issue 2, pp. 145-52, (1999) (PubMed).

Kola, Baensch, Bautsch, Hennecke, Klos, Casaretto, Köhl: "Epitope mapping of a C5a neutralizing mAb using a combined approach of phage display, synthetic peptides and site-directed mutagenesis." in: **Immunotechnology : an international journal of immunological engineering**, Vol. 2, Issue 2, pp. 115-26, (1997) (PubMed).

Klos, Ihrig, Messner, Grabbe, Bitter-Suermann: "Detection of native human complement components C3 and C5 and their primary activation peptides C3a and C5a (anaphylatoxic peptides) by ELISAs with monoclonal antibodies." in: **Journal of immunological methods**, Vol. 111, Issue 2, pp. 241-52, (1988) (PubMed).