



# Mouse Anti-Human C5a monoclonal antibody, clone NN19 (CABT-ZB726)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Specificity</b>	It reacts with Human C5
<b>Target</b>	C5
<b>Immunogen</b>	Recombinant Human C5a Protein
<b>Isotype</b>	IgG1
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human
<b>Clone</b>	NN19
<b>Purification</b>	Protein A purified
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	ELISA(cap) We recommend the following for sandwich ELISA (Capture - Detection): CABT-ZB726 - CABT-ZB1046 This antibody will detect C5a in antibody pair set. [ABPR-ZB306]
<b>Preparation</b>	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human C5a. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
<b>Format</b>	Purified, Liquid
<b>Concentration</b>	Lot specific

<b>Size</b>	50 µL, 100 µL, 200 µL, 1 mL
<b>Buffer</b>	PBS
<b>Preservative</b>	None
<b>Storage</b>	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
<b>Ship</b>	Wet ice

## BACKGROUND

### Introduction

C5a is a protein fragment released from complement component C5. This 74 amino acid peptide in humans is generated by the cleavage of C5a convertase on the C5  $\alpha$ -chain during the classical, alternative, and lectin pathways of complement activation. The structure of C5a includes a core region consisting of four, anti-parallel alpha-helices held together by three disulfide linkages and a structured C-terminal tail, and C5a is rapidly metabolised by carboxypeptidase B to a 73 amino acid low activity form, C5a des-Arg. C5a is an extremely potent proinflammatory mediator, as well as a potent chemotactic factor for neutrophils and other leukocytes. It causes histamine release, increases in vascular permeability, induces several cytokines production from leukocytes, enhances neutrophil-endothelial cell adhesion, and augments the humoral and cell-mediated immune response. C5a is quickly metabolised by carboxypeptidases, forming the less potent C5adesArg. Acting via a classical G protein-coupled receptor, CD88, C5a and C5adesArg exert a number of effects essential to the innate immune response, while their actions at the more recently discovered non-G protein-coupled receptor, C5L2 (or GPR77), remain unclear. 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, making C5a inhibition an attractive therapeutic strategy. C5a is a strong chemoattractant and is involved in the recruitment of inflammatory cells such as neutrophils, eosinophils, monocytes, and T lymphocytes, in activation of phagocytic cells and release of granule-based enzymes and generation of oxidants, all of which may contribute to innate immune functions or tissue damage. Accordingly, the anaphylatoxin C5a is implicated in a variety of diseases such as rheumatoid arthritis, systemic lupus erythematosus, reperfusion injury, Alzheimer's disease, and sepsis.

<b>Keywords</b>	C5; complement component 5; C5D; C5a
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## GENE INFORMATION

<b>Synonyms</b>	C5; complement component 5; C5D; C5a; C5b; ECLZB; CPAMD4; complement C5; prepro-C5; C5a anaphylatoxin; anaphylatoxin C5a analog; C3 and PZP-like alpha-2-macroglobulin domain-
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containing protein 4

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Entrez Gene ID	<a href="#">727</a>
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UniProt ID	<a href="#">P41229</a>
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