Complement Component 5a (C5A) Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	Complement Component 5a (C5a), Monoclonal Antibody
Full Product Name	Biotin Linked Monoclonal Antibody to Complement Component 5a (C5a)
Product Gene Name	anti-C5a antibody
Product Synonym Names	C5a/Complement Component 5a
Clonality	Monoclonal
Isotype	IgG2b Kappa
Clone Number	D2
Host	Mouse
Species Reactivity	Human, Rat
Form/Format	Liquid; 0.01M PBS, pH7.4, containing 0.05% Proclin300, 50% glycerol.
Purity/Purification	Protein A + Protein G affinity chromatography
Concentration	>=1mg/mL (Please refer to the vial label for the specific concentration.) (lot specific)
Specificity	The antibody is a mouse monoclonal antibody raised against C5a. It has been selected for its ability to recognize C5a in immunohistochemical staining and western blotting.
Preparation and Storage	Store at 2 degree C to 8 degree C for frequent use, 20 degree C for 24 months The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Matching Pairs	Unconjugated Antibody: C5a Clone #D2 (MBS2138490) Biotin Conjugated Antibody: C5a Clone #D2 (MBS2129262)
Molecular Weight	188,305 Da
Chromosome Location	Chromosome: 9; NC_000009.11 (123714613..123812554, complement). Location: 9q33-q34
OMIM	120900
3D Structure	ModBase 3D Structure for P01031
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Immunogen Type	Prokaryotic Recombinant proteins/RP
Sequence of Immunogen	Thr678~Arg751
Conjugation	Biotin
Product Categories/Family for anti-C5a antibody	Infection immunity; Immune molecule; Autoimmunity; Primary, Biotin labeled
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-C5a antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunoprecipitation (IP)

Application Notes for anti-C5a antibody	WB: 0.52ug/mL IHC: 520ug/mL ICC: 520ug/mL
Related Product Information for anti-C5a antibody	MBS2129262 is an antibody targeting C5a. Also known as Biotin Linked Monoclonal Antibody to Complement Component 5a (C5a). Reactive in Human, Rat. Host: Mouse.
Other Notes	Small volumes of anti-C5a antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for C5a. It may not necessarily be applicable to this product.

NCBI GI #	119607886
NCBI GeneID	727
NCBI Accession #	EAW87480.1
UniProt Primary Accession #	P01031
UniProt Secondary Accession #	Q14CJ0; Q27I61
UniProt Related Accession #	P01031
NCBI Official Full Name	complement component 5
NCBI Official Synonym Full Names	complement component 5
NCBI Official Symbol	C5
NCBI Official Synonym Symbols	C5a; C5b; CPAMD4
UniProt Protein Name	Complement C5
UniProt Synonym Protein Names	C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4
UniProt Gene Name	C5
UniProt Synonym Gene Names	CPAMD4
UniProt Entry Name	CO5_HUMAN
NCBI Protein Information	complement C5; prepro-C5; C5a anaphylatoxin; anaphylatoxin C5a analog; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4
NCBI Summary for C5a	The protein encoded by this gene is the fifth component of complement, which plays an important role in inflammatory and cell killing processes. This protein is comprised of alpha and beta polypeptide chains that are linked by a disulfide bridge. An activation peptide, C5a, which is an anaphylatoxin that possesses potent spasmogenic and chemotactic activity, is derived from the alpha polypeptide via cleavage with a convertase. The C5b macromolecular cleavage product can form a complex with the C6 complement component, and this complex is the basis for formation of the membrane attack complex, which includes additional complement components. Mutations in this gene cause complement component 5 deficiency, a disease where patients show a propensity for severe recurrent infections. Defects in this gene have also been linked to a susceptibility to liver fibrosis and to rheumatoid arthritis. [provided by RefSeq, Jul 2008]

UniProt Comments for C5a	C5: Activation of C5 by a C5 convertase initiates the spontaneous assembly of the late complement components, C5-C9, into the membrane attack complex. C5b has a transient binding site for C6. The C5b-C6 complex is the foundation upon which the lytic complex is assembled. Defects in C5 are the cause of complement component 5 deficiency (C5D). A rare defect of the complement classical pathway associated with susceptibility to severe recurrent infections, predominantly by Neisseria gonorrhoeae or Neisseria meningitidis. An association study of C5 haplotypes and genotypes in individuals with chronic hepatitis C virus infection shows that individuals homozygous for the C5_1 haplotype have a significantly higher stage of liver fibrosis than individuals carrying at least 1 other allele (PubMed:15995705). Protein type: Secreted, signal peptide; Secreted Chromosomal Location of Human Ortholog: 9q33-q34 Cellular Component: membrane attack complex; extracellular space; extracellular region Molecular Function: protein binding; chemokine activity; endopeptidase inhibitor activity; receptor binding; C5a anaphylatoxin chemotactic receptor binding Biological Process: activation of MAPK activity; positive regulation of chemotaxis; in utero embryonic development; cytolysis; complement activation, alternative pathway; chemotaxis; glucose homeostasis; leukocyte migration during inflammatory response; complement activation; cellular calcium ion homeostasis; G-protein coupled receptor protein signaling pathway; positive regulation of angiogenesis; cell surface receptor linked signal transduction; regulation of complement activation; response to stress; innate immune response; negative regulation of dopamine secretion; inflammatory response; complement activation, classical pathway Disease: Complement Component 5 Deficiency; Eculizumab, Poor Response To
Research Articles on C5a	**1.** Evolution-related complement protein C5 is a substrate of prostate-specific antigen as potential immunoregulatory protein in diseased prostates and prostatic fluid.
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