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Rabbit Anti-C5a anaphylatoxin/AF350 Conjugated antibody

SL0324R-AF350

Product Name	Anti-C5a anaphylatoxin/AF350
Chinese Name	AF350 标记的过敏毒素 C5a/补体 C5a 抗体
Alias	Complement C5; Complement C5a; Hemolytic complement; C5a anaphylatoxin; C5a; IFN-gamma-complement component C5a fusion protein; Complement-C5; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4;
Research Area	immunology Neurobiology
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human(predicted:Mouse,Rat)
Applications	Flow-Cyt=1ug/test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	9/113kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from mouse C5a (725-770aa)
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** 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].

Function:
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.
Derived from proteolytic degradation of complement C5, C5 anaphylatoxin is a mediator of local inflammatory process. It induces the contraction of smooth muscle, increases vascular permeability and causes histamine release from mast cells and basophilic leukocytes. C5a also stimulates the locomotion of polymorphonuclear leukocytes (chemokinesis) and direct their migration toward sites of inflammation (chemotaxis).

Subunit:
C5 precursor is first processed by the removal of 4 basic residues, forming two chains, beta and alpha, linked by a disulfide bond. C5 convertase activates C5 by cleaving the alpha chain, releasing C5a anaphylatoxin and generating C5b (beta chain + alpha' chain).

Subcellular Location:
Secreted.

DISEASE:
Defects in C5 are the cause of complement component 5 deficiency (C5D) [MIM:609536]. A rare defect of the complement classical pathway associated with susceptibility to severe recurrent infections, predominantly by Neisseria gonorrhoeae or Neisseria meningitidis.
Note=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).

Similarity:
Contains 1 anaphylatoxin-like domain.

Contains 1 NTR domain.

Database links:

Entrez Gene: 727 Human

Entrez Gene: 15139 Mouse

Omim: 120900 Human

SwissProt: P01031 Human

SwissProt: P06684 Mouse

Unigene: 494997 Human

Unigene: 2168 Mouse

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

补体 C5a 片段能使活化的白细胞释放 MPO 和乳铁传递蛋白。随着弹性酶浓度增加，C5a 片段导致中性粒细胞释放 MPO 和乳铁传递蛋白增加，而组织蛋白酶 G 对两者的释放产生双向反应。经研究结果表明 C5a 片断对刺激中性粒细胞脱颗粒有重要作用。