SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-C5a antibody

Catalog Number: SL15197R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	C5a
Immunogen:	KLH conjugated synthetic peptide derived from human Complement C5 alpha chain: 951-1100/1676
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 Flow-Cyt=2ug/Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human(predicted:Mouse,Rat)
Predicted MW.:	104/112kDa
Subcellular Location:	Secretory protein
Background:	The complement component proteins: C2, C3, C4 and C5 are potent anaphyl-atoxins that are released during complement activation. Binding of these proteins to their respective G protein-coupled receptors, C3aR, C1R and C5aR, induces proinflammatory events, such as cellular degranulation, smooth muscle contraction, arachidonic acid metabolism, cytokine release, leukocyte activation and cellular chemotaxis. Activation of the complement system leads to the formation of C5b-9 terminal complex, and while C5b-9 can promote cell lysis, the sublytic assembly of C5b-9 on plasma membranes causes an opposite result and induces cell cycle activation and survival. C5b-9 can rescue oligodendrocytes from FAS-mediated apoptosis by regulating caspase-8 processing via PI 3-K signaling. C5b-9 may play a pro-inflammatory role in the acute phase of multiple sclerosis, but may also be neuroprotective during the chronic phase of the disease. Complement C5

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	precursor contains C5a anaphylatoxin. C3a and C5a secretion correlates with pathophysiological phenotypes such as asthma and bacterial meningitis. **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). Interacts with tick complement inhibitor. **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

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[VALIDATION IMAGES]

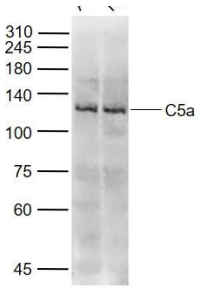


Figure 1. Sample: Lane 1: A549 (Human) Cell Lysate at 30 ug Lane 2: Hela (Human) Cell Lysate at 30 ug Primary: Anti-C5a (SL15197R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 115/105 kD Observed band size: 115 kD

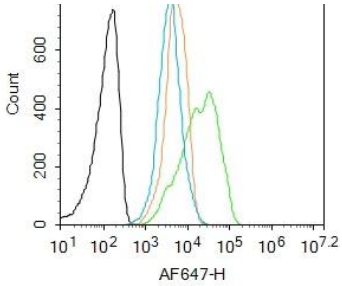


Figure 2. Blank control: HepG2. Primary Antibody (green line): Rabbit Anti-C5 antibody (SL15197R) Dilution: 2µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody: Goat anti-rabbit IgG-BF647 Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature.Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed

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