

## Rabbit Anti-Complement C5 beta chain antibody

SL10475R

<b>Product Name</b>	Complement C5 beta chain
<b>Chinese Name</b>	补体 C5 $\beta$ 链抗体
<b>Alias</b>	Anaphylatoxin C5a; C5; Complement C5; Complement C5 precursor; Complement component 5; CPAMD4; CO5_HUMAN.
<b>Immunogen Species</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>React Species</b>	Human, Flow-Cyt=2ug/Test (Paraffin sections need antigen repair)
<b>Applications</b>	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Theoretical molecular weight</b>	72kDa
<b>Cellular localization</b>	Secretory protein
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>immunogen</b>	KLH conjugated synthetic peptide derived from human Complement C5 beta chain: 51-150/1676
<b>Lsotype</b>	IgG
<b>Purification</b>	affinity purified by Protein A
<b>Buffer Solution</b>	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
<b>Storage</b>	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
<b>Attention</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>PubMed</b>	<a href="#">PubMed</a>
<b>Product Detail</b>	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). 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.

**SWISS:**  
P02748

**Gene ID:**  
727

**Database links:**

[Entrez Gene: 727](#) Human

[Entrez Gene: 15139](#) Mouse

[Omim: 120900](#) Human

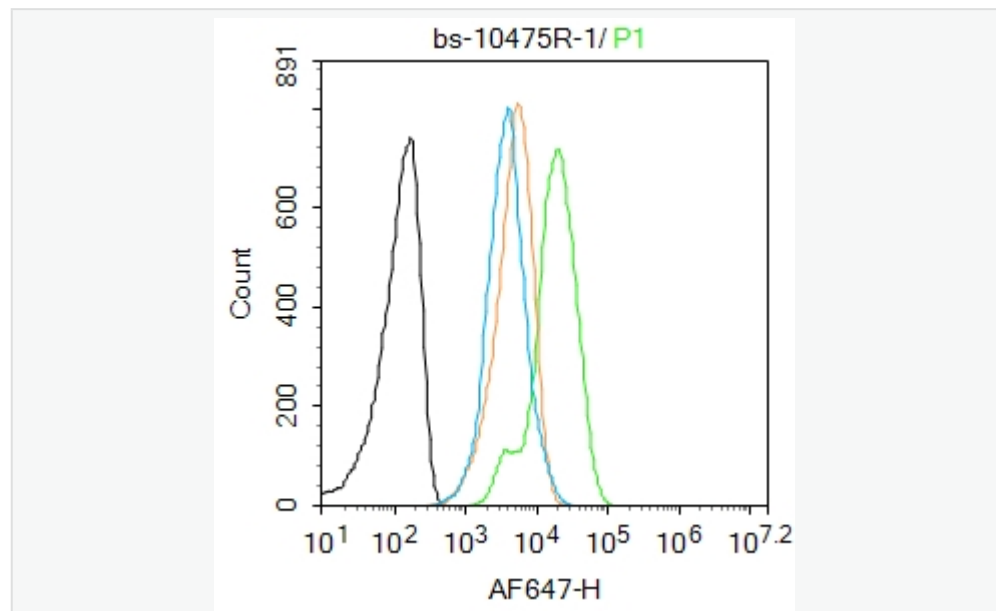
[SwissProt: P01031](#) Human

[SwissProt: P06684](#) Mouse

[Unigene: 494997](#) Human

[Unigene: 2168](#) Mouse

**Product Picture**



Blank control: HepG2.

Primary Antibody (green line): Rabbit Anti-Complement C5 beta chain antibody (SL10475R)

Dilution: 2 $\mu$ g /10<sup>6</sup> cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1 $\mu$ g /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.