

**RPCB1934**

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## Product Information

<b>Product SKU:</b>	RPCB1934	<b>Gene ID:</b>	15139	<b>Size:</b>	100µg
<b>Tag:</b>	No tag	<b>Reactivity:</b>	Mouse		

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## Additional Information

<b>Expression Host:</b>	E.coli	<b>Swissprot:</b>	P06684
<b>Purity:</b>	> 95% by SDS-PAGE, ≥ 90% by SEC-HPLC		

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## Protein Information

**Background:** 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

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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.

- Protein Description:** High quality, high purity and low endotoxin recombinant Recombinant Mouse Complement C5A Protein , tested reactivity in E.coli and has been validated in SDS-PAGE.100% guaranteed.
- Endotoxin:** Please contact us for more information.
- Formulation:** Lyophilized from sterile PBS, pH 7.4. Contact us for customized product form or formulation.
- Storage:** Store at -20°C.Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.