

# Recombinant Mouse Hc Protein, No Tag, Biotinylated

## Product Information

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<b>Cat</b>	IMP-1871
<b>Official Symbol</b>	Hc
<b>Product Overview</b>	Recombinant mouse C5a (NP_034536.2) (Asn679-Arg755) was expressed with an initial Met. The purified protein was biotinylated in vitro.
<b>Description</b>	<p>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 <math>\alpha</math>-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 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.</p>
<b>Expression System</b>	<i>E. coli</i>
<b>Species</b>	Mouse
<b>Tag</b>	No Tag
<b>Predicted N Terminal</b>	Met
<b>Form</b>	Lyophilized from sterile PBS, pH 7.4, 5 % trehalose, 5% mannitol and 0.01% Tween80.

**Molecular Mass**

The recombinant mouse C5a consists of 78 amino acids and predicts a molecular mass of 9 kDa.

**Protein length**

Asn679-Arg755

**Endotoxin**

Please contact us for more information.

**Purity**

> 95 % as determined by SDS-PAGE

**Storage**

Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Reconstitution**

A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

**SDS-PAGE**