

Complement C5/C5a Protein, Cynomolgus

Cat. No.:	HY-P78595
Synonyms:	C5a; Complement Component 5a
Species:	Cynomolgus
Source:	E. coli
Accession:	XP_015292262.1 (M678-R751)
Gene ID:	/
Molecular Weight:	Approximately 11 kDa

PROPERTIES

AA Sequence	M L Q E K I E E I A A K Y K H L V V K K C C Y D G V R I N H D E T C E Q R A A R I S V G P R C V K A F T E C C V V A S Q L R A N N S H K D L Q L G R
Biological Activity	1. Immobilized Cynomolgus Complement C5a at 2 µg/mL (100 µL/well) can bind Anti-C5a (Human IgG1) with a linear range of 0.8-13 ng/mL. 2. Immobilized C5a at 2 µg/mL (100 µL/well) can bind anti-C5a. The ED ₅₀ for this effect is 41.72 ng/mL, corresponding to a specific activity is 2.39×10 ⁴ units/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized a 0.22 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Upon activation by a C5 convertase, Complement C5 initiates the spontaneous assembly of the late complement components, C5-C9, forming the membrane attack complex. The transient binding site for C6 on C5b is crucial for the foundation of the lytic complex. The proteolytic degradation of complement C5 produces C5a anaphylatoxin, a mediator of local inflammatory processes. C5a interacts with its receptor C5AR1, triggering diverse responses such as intracellular calcium release, smooth muscle contraction, increased vascular permeability, and histamine release from mast cells and
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basophilic leukocytes. Acting as a potent chemokine, C5a stimulates the locomotion of polymorphonuclear leukocytes and guides their migration toward sites of inflammation, contributing to the orchestration of immune responses.

Caution: Product has not been fully validated for medical applications. For research use only.

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