

Complement C3/C3 Protein, Bovine (His-SUMO)

Cat. No.:	HY-P71552
Synonyms:	C3Complement C3; Complement C3b alpha' chain; Complement C3c alpha' chain fragment 1; Complement C3dg fragment; Complement C3g fragment; Complement C3d fragment; Complement C3f fragment; Complement C3c alpha' chain fragment 2]
Species:	Bovine
Source:	E. coli
Accession:	Q2UVX4 (S747-Q953)
Gene ID:	280677
Molecular Weight:	Approximately 44 kDa. The reducing (R) protein migrates as 44 kDa in SDS-PAGE maybe due to relative charge.

PROPERTIES

AA Sequence	<pre> S D L D D D I I P E E D I I S R S Q F P E S W L W T V I E D L K Q A D K N G I S T K L M N V F L K D S I T T W E I L A V S L S D K K G I C V A D P Y E V T V M Q D F F I D L R L P Y S V V R N E Q V E I R A I L Y N Y R E A E N L K V R V E L L Y N P A F C S L A T A K K R H Q Q T I T I P A R S S V A V P Y V I V P L K I G L H E V E V K A A V Y N H F I S D G V K K T L K V V P E G V R V N K T V A V R T L N P E H L G Q </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.
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.
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	C3 assumes a pivotal role in the initiation of the complement system, serving as a substrate for C3 convertase in both the classical and alternative pathways. Upon activation, C3 undergoes proteolytic cleavage, generating C3b, which can covalently bind to cell surface carbohydrates or immune aggregates through its reactive thioester moiety. Concurrently, the anaphylatoxin C3a is produced as a result of C3 degradation, functioning as a mediator in local inflammatory processes. C3a
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induces smooth muscle contraction, enhances vascular permeability, and stimulates histamine release from mast cells and basophilic leukocytes. Additionally, in chronic inflammation, C3a acts as a chemoattractant for neutrophils.

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

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