Product Data Sheet

Product Name:	C3c Human
Cat. No.:	GP22938
Batch No.:	1

Product Data

Purity	>98%	Source	Human Plasma.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Complement C3c; Complement Component C3c; C3c.		
Amino Acid Sequence	C3c Beta chain (23-667)		
Solubility	It is recommended to reconstitute the lyophilized C3c in de-ionized water.		
Formulation	The Human Complement C3c was lyophilizedin a sodium phosphate buffer, pH 7.2, containing 0.15M NaCl.		

Introduction

The C3c component is central in both complement activation pathways, with different specific proteolytic systems cleaving it to form C3 convertase. Cleavage of C3 releases C3a and the C3b fragment which is part of the alternative C3 convertase. C3 levels can be low because of decreased synthesis or due to consumption. High C3 levels are seen in highly acute or chronic inflammation, hepatic cholestasis and during the third trimester of pregnancy.Unwanted complement activation is a major cause of tissue damage in various pathological conditions and contributes to quite a few immune complex diseases. Compstatin is an effective inhibitor of the activation of complement component C3 and thus blocks a central and essential step in the complement cascade. The specific binding site on C3, the configuration in the bound form, and the exact mode of action of compstatin are unknown. The crystal structure of compstatin in complex with C3c reveals that the compstatin-binding site is formed by the macroglobulin (MG) domains 4 and 5. This binding site is part of the structurally stable MG-ring created by domains MG1иC6 and is distant from any other known binding site on C3. Compstatin does not modify the conformation of C3c, while compstatin itself undergoes a large conformational alteration upon binding.

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Stability

Human C3c although stable at room temperature for 3 weeks, should be stored between 2-8°C .

Background

Human C3c produced in Human Plasma having a molecular mass of 137 KDa. Complement C3c consists of three peptides: C3c Beta chain (23-667), C3c alpha chain fragment 1 (749-954) and C3c alpha chain fragment 2 (1321-1663) joined together by disulphide bonds.

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