



Product Datasheet

Product Name	Complement Component C3c Human
Cata No	CB501167
Source	<i>Human Plasma</i>
Synonyms	Complement C3c, Complement Component C3c, C3c.

Description

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 MG1–6 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.

Human C3c produced in Human Plasma having a molecular mass of 180 KDa.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Purity

Greater than 96.0%.

Formulation

The Human Complement C3c was lyophilized from a sodium phosphate buffer, pH 7.2, containing 0.15M NaCl.

Reconstitution

It is recommended to reconstitute the lyophilized C3c in de-ionized water.

Stability

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

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