9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

C3c Human

Complement Component C3c Human
RCP0289

Product Overview

Name	C3c Human

Description

Complement Component C3c Human

Synonyms

Complement C3c, Complement Component C3c, C3c.

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 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.

Source

Human Plasma.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

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

Stability

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

Purity

Greater than 96.0%.

9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

Amino acid sequence

C3c Beta chain (23-667) SPMYSIITPNILRLESEETMVLEAHDAQGDVPVTVTVHDFPGKKLVLSSEKTVLTPATNH
MGNVTFTIPANREFKSEKGRNKFVTVQATFGTQVVEKVVLVSLQSGYLFIQTDKTIYTPG
STVLYRIFTVNHKLLPVGRTVMVNIENPEGIPVKQDSLSSQNQLGVLPLSWDIPELVNMG
QWKIRAYYENSPQQVFSTEFEVKEYVLPSFEVIVEPTEKFYYIYNEKGLEVTITARFLYG
KKVEGTAFVIFGIQDGEQRISLPESLKRIPIEDGSGEVVLSRKVLLDGVQNPRAEDLVGK
SLYVSATVILHSGSDMVQAERSGIPIVTSPYQIHFTKTPKYFKPGMPFDLMVFVTNPDGS
PAYRVPVAVQGEDTVQSLTQGDGVAKLSINTHPSQKPLSITVRTKKQELSEAEQATRTMQ
ALPYSTVGNSNNYLHLSVLRTELRPGETLNVNFLLRMDRAHEAKIRYYTYLIMNKGRLLK C3c alpha chain fragment 1
(749-954) SNLDEDIIAEENIVSRSEFPESWLWNVEDLKEPPKNGISTKLMNIFLKDSITTWEILAVS
MSDKKGICVADPFEVTVMQDFFIDLRLPYSVVRNEQVEIRAVLYNYRQNQELKVRVELLH
NPAFCSLATTKRRHQQTVTIPPKSSLSVPYVIVPLKTGLQEVEVKAAVYHHFISDGVRKS
LKVVPEGIRMNKTVAVRTLDPERLGR C3c alpha chain fragment 2 (1321-1663)
SEETKENEGFTVTAEGKGQGTLSVVTMYHAKAKDQLTCNKFDLKVTIKPAPETEKRPQDA
KNTMILEICTRYRGDQDATMSILDISMMTGFAPDTDDLKQLANGVDRYISKYELDKAFSD
RNTLIIYLDKVSHSEDDCLAFKVHQYFNVELIQPGAVKVYAYYNLEESCTRFYHPEKEDG
KLNKLCRDELCRCAEENCFIQKSDDKVTLEERLDKACEPGVDYVYKTRLVKVQLSNDFDE
YIMAIEQTIKSGSDEVQVGQQRTFISPIKCREALKLEEKKHYLMWGLSSDFWGEKPNLSY
IIGKDTWVEHWPEEDECQDEENQKQCQDLGAFTESMVVFGCPN

Solubility

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

Human Virus Test

Plasma from each donor has been tested and found negative for HIV-1 & 2 antibodies, Hepatatis B surface antigen, and Hepatatis C antibodies.

Precautions

C3c Human is for research use only and not for use in diagnostic or therapeutic procedures.