

Specific assessment of the split product C3c as a putative inflammatory marker derived from the complement factor C3

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Technical Field

Biotechnology – health and medico- technical

Business Opportunity

License, Investment and Spin-out

Current State of technology

A validated assay is established for the specific assessment of C3c (Palarasah *et al.* Journal of Immunological Methods, 2010). Blood samples (EDTA plasma) from relevant patient groups are currently being collected and will be evaluated for levels of C3c and other inflammatory markers.

Applications

The invention is a prognostic marker for inflammatory continuities of care. The prognostic marker provides the ability to assess the patients condition and can be applied in the selection of the correct treatment method.

The complement system involves a large number of plasma proteins that react with one another in sequence to opsonize or directly kill invading micro-organisms and to contribute to the induction of inflammatory responses. A broad range of diseases is characterized by complement activation and a systemic inflammatory response. Such diseases are among others autoimmune diseases such as systemic lupus erythematosus (SLE), rheumatoid arthritis and multiple sclerosis and acute reactions due to transplantation, certain cardiovascular diseases and infectious diseases, which involve systemic inflammatory responses. In light of this, components of the complement system are obvious biomarkers for systemic inflammation in acute and chronic diseases.

Product Advantages

The inflammatory marker provides a faster analysis grounds for measurement inflammatory conditions than what is offered in the market today. As such acute patients can be evaluated faster and more efficient and can be provided correct treatment within an acceptable time frame.

The Technology

The present invention relates to antibodies with exclusive specificity towards neo-epitopes that are only exposed on the cleavage product C3c (the c fragment of the central complement factor C3). The introduced assay is based on one of these monoclonal antibodies and is able to accurately measure the plasma C3c level. The assay could potentially be of value in the assessment of the complement activation status during acute or chronic inflammatory processes.

Intellectual Property Rights

IPR's are owned by the University of Southern Denmark. US patent application filed May 2010.



The Inventors

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Publication relevant to the invention:

Palarasah Y, Skjødt K, Brandt J, Teisner B, Koch C, Vitved L, Skjødt MO. Generation of a C3c specific monoclonal antibody and assessment of C3c as a putative inflammatory marker derived from complement factor C3. J Immunol Methods. 2010 Sep 24

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