METHODS FOR THE MEASUREMENT OF PROTEIN C AND ACTIVATED PROTEIN C

A research group from CIBER has developed a new mass spectrometry-based method for the quantification of protein C (PROC) and activated protein C (APC) and its uses

The Need

Disseminated intravascular coagulation is a serious complication in critically ill septic patients, so it is highly important to identify earlier and predict this complication.

Moreover, previous studies on the therapeutic applications of recombinant natural or mutated human APC reinforce the idea of the need of detection and monitorization methods for measuring endogenous and exogenous human PROC and APC.

Due to the important secondary effects associated to recombinant PROC or APC treatment, there is a need of methods for identifying patients who can benefit from this therapeutic strategy.

The Solution

The technology provides a method for measuring the levels of PROC and APC in a blood sample from a subject using proteotypic peptides and mass spectrometry.

The method also includes screening and prognosis of different diseases associated with levels of PROC and APC

Innovative Aspects

The present technology aims to solve the above problems by providing efficient and accurate methods for measuring PROC and APC based on the detection using mass-spectrometry of two specific peptides.

Beyond the detection of PROC and APC, the technology provides a method for screening or classifying subjects at risk of having sepsis and septic shock and disseminated intravascular coagulation.

Furthermore the mass spectrometry-based method provides a prognostication to the response to treatment with recombinant PROC and APC.

Stage of Development:
Preclinical stage.

Intellectual Property:

- Priority European patent application filed
- Suitable for international extension (PCT application)

Aims

Looking for a partner interested in a license and/or a collaboration agreement to develop and exploit this asset.

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