

A METHOD AND A KIT FOR THE DETECTION OF ANTI-BETA AMYLOID ANTIBODIES



SUMMARY

We set up an innovative test for the ultra sensitive dosage of auto-antibodies against amyloid-beta protein ($A\beta$) in different biological samples, particularly in human cerebrospinal fluid. The test consists of a magnetic beads pre-enrichment step followed by an inverted enzyme-linked immunosorbent assay. As a further advantage, the test allows simultaneously detecting the $A\beta$ -related cerebrovascular damage, based on the co-recognition of Tissue Factor Pathway Inhibitor (TFPI).

We already prototyped the assay and performed extensive testing on a large cohort of $A\beta$ -related diseases recruited worldwide, such as in Cerebral Amyloid Angiopathy (CAA) patients. Thanks to the product, we demonstrated for the first time the pathogenetic mechanisms characterizing a rare disease called CAA-ri. The dosage of autoantibodies by our invention is today recognized as the only diagnostic biomarker available for CAA-ri, and it has been recently included in the clinical diagnostic criteria.

WebSite: <https://sites.google.com/site/icabinternationalnetwork>
resistant and antibiotic-susceptible Gram-positive bacteria.

KEY POINTS / ADVANTAGES

- The first-ever product (test) for the detection and ultrasensitive quantification of anti-Amyloid-beta autoantibodies in human cerebrospinal fluid.
- Extensive validation and recognition of the use of this test as the most promising biomarker to make the diagnosis of Cerebral Amyloid Angiopathy and Alzheimer's disease.
- Theranostic biomarker to monitor the effective response to treatment

MARKETING OPPORTUNITIES

Clinical applicability: the first minimally invasive and less expensive diagnostic test and biomarker for CAA-ri, as an alternative to the high risk brain biopsy procedure today in use.

Research applicability: Kits for pathophysiological and pharmaceutical studies, with translational implications in all the amyloid beta related diseases; Commercialization of a research kit for the ultra sensitive quantification of antibodies and TFPI in cellular, animal and human samples

Identification Code

05-2012-071

Patent Status

IT 1413534 (granted)

WO 2013/140349, designated

States: Europe (pending)

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Commercial Rights

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Collaboration

Industry Categories

Life Science & Biotechnology

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