

Thymidine kinase 1 can distinguish Mycoplasma pneumonia from other respiratory infections

AroCell AB today announces that a new article has been published in the Journal of Immunological Methods. The results in the article imply that it is possible to design diagnostic algorithms of biomarkers that can help distinguish Mycoplasma pneumonia from other respiratory infections caused by bacteria or viruses.

Mycoplasma pneumonia is caused by the bacterium *Mycoplasma pneumoniae*, infecting the lower respiratory tract leading to atypical pneumonia. Current diagnostic tests of Mycoplasma pneumoniae infections of the respiratory tract such as PCR and serology are either somewhat unreliable or slow to perform. Thus, they do not meet the clinical needs of accurate and fast diagnosis, that the therapeutic decisions rely on.

The newly published article demonstrates that measuring Thymidine kinase 1 (TK1) concentration alone can distinguish Mycoplasma pneumonia from other bacterial infections. In fact, TK1 in combination with other infection biomarkers, such as IP-10 or P-HNL, showed even higher accuracy for diagnosis of Mycoplasma pneumonia. This shows that TK1 is a potentially promising tool for therapeutic decision-making, not only in the cancer field but also for Mycoplasma pneumonia, especially when used in combination with other markers. The development of assays based on this kind of algorithms could be clinically useful tools in therapeutic decision-making.

AroCell has earlier this year applied for a patent based on that respiratory infection in humans caused by Mycoplasma pneumoniae lead to significantly increased levels of Thymidine kinase 1 protein, as measured with AroCell's CE-marked serum TK1 protein assay, AroCell TK 210 ELISA.

"We are happy to have achieved these exciting results that in combination with our patent application opens up new fields for AroCell using TK1 in other clinical areas besides oncology. We have been evaluating the use of TK1 as a marker for certain infectious diseases for some time now. This has opened new possibilities for AroCell.", says Michael Brobjer, CEO.

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About Thymidine Kinase 1

Thymidine Kinase 1 (TK1) is a key enzyme in DNA precursor synthesis. It is up-regulated during the S phase of the cell cycle and degraded in mitosis. Its presence in cells indicates active cell proliferation. Increased levels of TK1 in the blood can indicate abnormal cell turnover or disruption of cells in active proliferation triggered by, for example, therapeutic agents.

About TK 210 ELISA

AroCell TK 210 ELISA is a quantitative immunoassay kit for the determination of Thymidine Kinase 1 (TK1) in human blood. The ELISA format is simple and robust, requires no special instrumentation to perform and can easily be incorporated into standard laboratory processes. By utilizing monoclonal antibodies specific for the TK1 epitope TK 210, AroCell TK 210 ELISA brings improved sensitivity and specificity to the assay of this key biomarker. AroCell TK 210 ELISA provides new opportunities for studying cellular proliferation, disruption, and monitoring of therapy response and relapse in subjects with haematological and solid tumours.

About AroCell

AroCell AB (publ) is a Swedish company that develops standardized modern blood tests to support the prognosis and follow up of cancer patients. AroCell's new technology is based on patented methods to measure Thymidine Kinase 1 (TK1) protein concentrations in a blood sample. The TK 210 ELISA test provides valuable information mainly about the condition of cancer patients. This may help clinicians to optimize treatment strategies and estimate the risk of recurrence of tumor disease during the monitoring of the disease. AroCell (AROC) is listed at Nasdaq First North Growth Market with Redeye AB as Certified Adviser: Certifiedadviser@redeye.se, +46 (0)8 121 576 90. For more information: www.arocell.com

Attachments

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