QIAGEN’s Molecular Assays Detect Recently Discovered Chlamydia Trachomatis Strain

QIAGEN, the world’s leading provider of sample and assay technologies for research in life sciences, applied testing and molecular diagnostics, announced that the County Hospital in Halmstad, Sweden, confirmed reliable detection of a new strain of the bacterium Chlamydia trachomatis (C. trachomatis) using two of QIAGEN’s artus® C. trachomatis PCR Kits*. The mutant C. trachomatis strain, which shows a specific genetic variation (deletion) in the cryptic plasmid, was discovered last year in the Swedish County Hospital of Halmstad. All current detection systems using this plasmid region as a target area fail to detect the Chlamydia infection.

QIAGEN offers three CE-marked assay systems for the detection of C. trachomatis. “All three PCR Kits showed reliable detection of this new strain, as they target a region of the Chlamydia trachomatis genome other than the deleted one in the mutant strain,” explained Dr Tobias Ruckes, Associate Marketing Director, Molecular Diagnostics, QIAGEN Hamburg GmbH. “With the artus C. trachomatis Plus PCR Kits, QIAGEN provides the only test systems worldwide that detect a non-deleted region of the cryptic plasmid and, in addition, the genomic ompA gene. This dual target detection allows greatest specificity, sensitivity, and reliability.”

C. trachomatis is the most common sexually transmitted bacterial pathogen causing infections in the mucous membranes of eyes, throat, or the genital area. If patients are not treated due to false negative results, this may have severe consequences, including infertility in women. On average, 1 in 20 adults and 1 in 16 teenagers in Europe is infected.

In 2006, the Swedish Institute for Infectious Disease Control reported that sexually transmitted Chlamydia trachomatis infections can no longer reliably be detected by conventional molecular diagnostic tests targeting the cryptic plasmid for detection. To assure reliable diagnostic results and to prevent spreading of the mutated strain, the Health Protection Agency in Great Britain recommends using assays detecting double target genes of the infectious agent in the same test reaction.

According to the latest research data, up to 40% of all C. trachomatis infections in some regions of Sweden are caused by the variant strain and it is unclear how long it has been circulating undiagnosed. Due to the high prevalence and because the genetic variant was not detected and treated, it may have already spread to other countries.

* artus C. trachomatis PCR Kit and artus C. trachomatis Plus PCR Kits are CE-marked for in vitro diagnostic use in Europe. The kits are not available in the USA and Canada.
Dr Torval Ripa, Lab Director, and Dr Peter Nilsson, microbiologist of the Halmstad County Hospital, Department of Clinical Microbiology and Infection Control, tested ten clinical samples with the mutant C. trachomatis strain using QIAGEN’s artus C. trachomatis PCR Kits. The results showed 100% reliability, all samples carrying the variant strain tested positive.

QIAGEN’s real-time PCR kits for C. trachomatis detection are highly sensitive, diagnostic test systems, which can be used in the early stages of Chlamydia infection. The artus C. trachomatis PCR Kit is available for the following detection systems: ABI PRISM® 7000, 7700, and 7900HT SDS, and the artus C. trachomatis Plus PCR Kits are available for the LightCycler® 1.1/1.2/1.5/2.0 Instruments, and Rotor-Gene™ 3000.

About QIAGEN:
QIAGEN N.V., a Netherlands holding company, is the leading provider of innovative sample and assay technologies and products. The products are considered standards in areas such as pre-analytical sample preparation and molecular diagnostics solutions. QIAGEN has developed a comprehensive portfolio of more than 500 proprietary, consumable products and automated solutions for sample collection, nucleic acid and protein handling, separation, and purification and open and target specific assays. The company’s products are sold to academic research markets, to leading pharmaceutical and biotechnology companies, to applied testing customers (such as in forensics, veterinary, biodefense and industrial applications) as well as to molecular diagnostics laboratories.

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