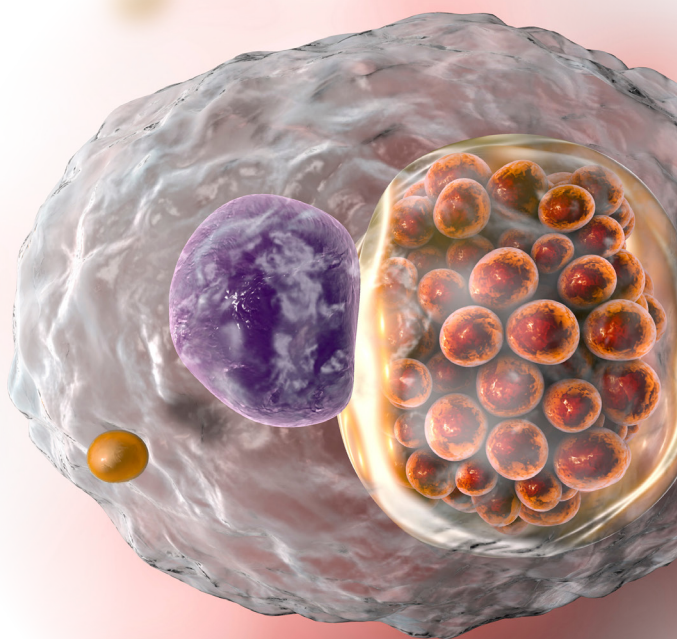


# Anti-*C. trachomatis*

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Specific IgG, IgM and IgA  
antibody determination





# Infections with *C. trachomatis*

## *A global threat*

### Pathogen

*Chlamydia trachomatis* species is divided into different serovars and genotypes. The serotypes D – K cause sexually transmitted infections of the genitourinary tract and – after perinatal transmission – infections in newborns.

### Epidemiology


*Chlamydia trachomatis* infections are among the most common sexually transmitted diseases worldwide. The World Health Organization estimates the global incidence to be around 130 million and the prevalence at 10 – 20 %.

### Transmission

The pathogen reservoir for *C. trachomatis* is humans. *Chlamydia trachomatis* serovars D – K are transmitted through sexual contact.

### Clinical Symptoms

Most infections with *Chlamydia trachomatis* are clinically inapparent and remain undetected. Infection in men can present as urethritis or prostatitis and epididymitis as well as proctitis. Infection in women can manifest as urethritis, cervicitis and salpingitis, endometritis and perihepatitis. The development of cervical cancer as a result of infection with *C. trachomatis* is discussed. Infections with *Chlamydia trachomatis* are considered the most common cause of sterility and infertility. In addition, *C. trachomatis* infections are associated with the development of post-infectious reactive arthritis. Infections during pregnancy increase the risk of pregnancy complications, especially spontaneous abortion and premature birth. Perinatal infections of newborns often lead to conjunctivitis and pneumonia.



## Diagnosis

The diagnosis of *Chlamydia trachomatis* infections is performed on the basis of clinical symptoms and laboratory analyses. Direct (e. g. PCR) and indirect methods for antibody determination (e. g. ELISA, CLIA, IFA, Immunoblot) are available for laboratory diagnostic confirmation. IgM, IgG and IgA antibodies against *Chlamydia trachomatis* are usually produced during primary infections. Whereas IgM antibodies are generally no longer detectable a few weeks after primary infection, IgG antibodies usually remain much longer and confirm contact with the pathogen.

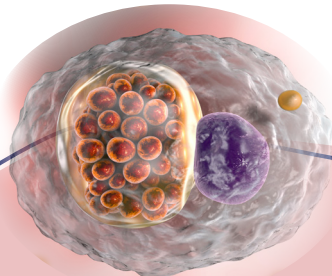
## Anti-*Chlamydia trachomatis* Specific antibody detection

### Antigen

The Alegria Anti-*Chlamydia trachomatis* IgA, IgG and IgM Abs. Monotests are based on recombinant MOMP, TARP, and CPAF antigens of *C. trachomatis* for a species-specific determination of IgA, IgG and IgM antibodies.

### Calibration

The Alegria Anti-*Chlamydia trachomatis* IgA, IgG and IgM Abs. Monotests are calibrated using internal reference samples. Results are expressed in U/mL.



## Sensitivity and Specificity

	Sensitivity	Specificity	Diagnostic Efficiency
Anti-Chlamydia trachomatis IgA	89.5 %	> 99 %	> 99 %
Anti-Chlamydia trachomatis IgG	> 99 %	> 99 %	> 99 %
Anti-Chlamydia trachomatis IgM Abs.	> 99 %	> 99 %	> 99 %

## Precision Anti-Chlamydia trachomatis IgA

	Intraassay Repeatability		Interassay Reproducibility	
	Antibody Activity (U/mL)	Coefficient of Variation (CV)	Antibody Activity (U/mL)	Coefficient of Variation (CV)
Sample 1	10.1 U/mL	6.8 %	8.1 U/mL	6.7 %
Sample 2	31.9 U/mL	3.7 %	34.2 U/mL	7.1 %
Sample 3	71.0 U/mL	3.6 %	72.0 U/mL	2.5 %

## Precision Anti-Chlamydia trachomatis IgG

	Intraassay Repeatability		Interassay Reproducibility	
	Antibody Activity (U/mL)	Coefficient of Variation (CV)	Antibody Activity (U/mL)	Coefficient of Variation (CV)
Sample 1	8.3 U/mL	2.4 %	9.5 U/mL	5.6 %
Sample 2	27.8 U/mL	5.4 %	29.4 U/mL	3.7 %
Sample 3	87.3 U/mL	4.4 %	197.9 U/mL	4.1 %





## Product Highlights

- ELISA-based random access detection of IgG, IgM and IgA antibodies against *Chlamydia trachomatis*
- Full automation and complete traceability with Alegria 2
- Lab-on-a-Strip: ready-to-use test-specific reagents in individually sealed and barcoded Alegria Monotest strips
- Species-specific determination of antibodies against recombinant MOMP, TARP, and CPAF antigens of *Chlamydia trachomatis*
- Integrated Rf-absorption prior to IgM detection
- Excellent diagnostic efficiency
- High reproducibility for robust and reliable test results
- Economical all-in-one Alegria Monotests, particularly suited for small series
- Flexible combination of Alegria Monotests for optimal workflow efficiency

## Ordering *information*

- Anti-Chlamydia trachomatis IgA .....**ORG 906A**
- Anti-Chlamydia trachomatis IgG .....**ORG 906G**
- Anti-Chlamydia trachomatis IgM Abs. ....**ORG 906MX**



Scan here **for more information** about Alegria Anti-Chlamydia trachomatis Monotests

## Literature

Grygiel-Górniak, B. and Folga, B.A. (2023) *Chlamydia trachomatis* - An Emerging Old Entity? *Micro-organisms*. *11*, 1283.

Rodrigues, R. et al. (2022) *Chlamydia trachomatis* as a Current Health Problem: Challenges and Opportunities. *Diagnostics (Basel)* *12*, 1795.

Adachi, K.N. et al. (2021) *Chlamydia trachomatis* Screening and Treatment in Pregnancy to Reduce Adverse Pregnancy and Neonatal Outcomes: A Review. *Front. Public Health* *9*, 531073.



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