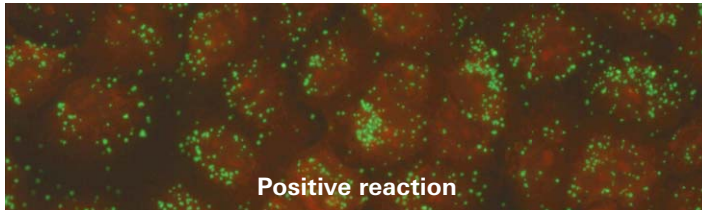
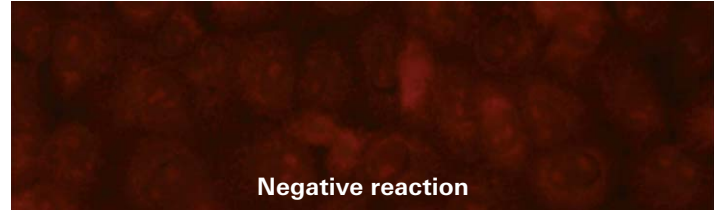




## Anti-Chlamydia MIF (IgA, IgG, IgM)



Positive reaction



Negative reaction

- Parallel determination of antibodies against *C. trachomatis*, *C. pneumoniae* and *C. psittaci*
- Clear reduction of cross reactivity by inactivation of the shared lipopolysaccharide (LPS) antigen
- Simplified focusing for cell-based substrates compared to yolk sac matrix

### Technical data

<b>Antigen substrate</b>	Elementary bodies of <i>C. trachomatis</i> , <i>C. pneumoniae</i> and <i>C. psittaci</i>
<b>Sample material</b>	Serum or plasma
<b>Sample dilution</b>	Qualitative: 1 : 10 (IgA, IgM), 1 : 100 (IgG); semiquantitative: from 1 : 10/100/1000 etc.
<b>Test procedure</b>	IgA, IgG: 30 min (sample) / 30 min (conjugate), room temperature IgM: 60 min (sample) / 30 min (conjugate), 37 °C
<b>Microscopy</b>	Objective: 20x Light source: EUROIMMUN LED, EUROStar Bluelight or mercury vapour lamp Excitation filter: 450–490 nm, colour separator: 510 nm, blocking filter: 515 nm
<b>Reagents</b>	Ready for use, with the exception of the PBS-Tween buffer (for dilutions and washing steps)
<b>Stability</b>	18 months from the date of manufacture when stored at +2 °C to +8 °C
<b>Test kit format</b>	10 slides, each containing 5 or 10 test fields; kits include all necessary reagents (for RF absorption EUROSORB is also required, order no. ZF 1270-0145)
<b>Order no.</b>	FI 2191-1005-3 A, G or M (example for a test kit including 10 slides with 5 fields each)
<b>Related products</b>	FR 2191-####-3 A, G or M: Anti-Chlamydia MIF EUROPattern (IgA, IgG, IgM)

### Clinical significance

The infectious agents *Chlamydia trachomatis*, *C. psittaci* and *C. pneumoniae* belong to the human pathogenic *Chlamydia* genus. They are among the smallest intracellular gram-negative bacteria.

In humans, *C. trachomatis* can cause infections of the eyes (serovars A–C) and the urogenital tract (serovars D–K, L1–L3). Infections with the *C. trachomatis* serovars D–K often proceed asymptotically. If symptoms develop they are urethritis, epididymitis and prostatitis in men, and urethritis, cervicitis and salpingitis/adnexitis in women. Chronic infections of the inner female genital organs lead in many cases to sterility. Secondary infertility in men has also been shown. After a urogenital infection with *C. trachomatis*, sequelae such as reactive arthritis may develop.

*C. pneumoniae* is transmitted by aerosols and causes infections of the upper respiratory tract. Most infections proceed asymptotically. A large proportion of adults have had an infection with *C. pneumoniae* and are seropositive to the pathogen. Reinfections may occur.

*C. psittaci* can be found in large quantities in the secretions and excrements of infected birds where it remains alive for long periods. The inhalation of infected dust leads to the zoonoses ornithosis or psittacosis (parrot fever) in humans. In addition to flu-like symptoms, life-threatening pneumonia can develop during the course of the infection, which is often accompanied by further organ manifestations.

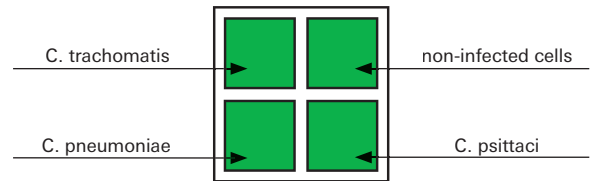
### Diagnostic application

The EUROIMMUN Anti-Chlamydia MIF (micro-immunofluorescence assay), based on purified elementary bodies of the species *C. trachomatis*, *C. pneumoniae* and *C. psittaci* as the antigen, supports the diagnosis of *Chlamydia* infections. By inactivation of the lipopolysaccharide (LPS) antigen, cross reactions within the *Chlamydia* species and to other bacteria are minimised, so that species-specific antibody detection is possible. In addition, a fourth BIOCHIP with non-infected cells allows reliable differentiation between unspecific and specific fluorescence.



## BIOCHIP arrangement

The EUROIMMUN Anti-Chlamydia MIF is available in two formats: slides with 5 or 10 fields. One test field contains four BIOCHIPS.



## Reference range

Titer 1: < 10 (IgA, IgM) or titer 1 : < 100 (IgG)

## Prevalence, sensitivity and specificity

Antigen substrate	Ig class	n	Panel	Prevalence (%)
<b>C. trachomatis</b>	IgA	200	Healthy blood donors	8
		97	Positive C. trachomatis direct detection	47
		41	Prostitutes	56
	IgG	200	Healthy blood donors	16
		100	Positive C. trachomatis direct detection	48
		41	Prostitutes	68
<b>C. pneumoniae</b>	IgA	200	Healthy blood donors	4
		212	Healthy blood donors	39
	IgG	30	Antibody positive samples	100
		216	Healthy blood donors	63
<b>C. psittaci</b>	IgA	30	Antibody positive samples	100
		200	Healthy blood donors	1
	IgM	200	Healthy blood donors	1
200		Healthy blood donors	0	
81		Bird owners	15	
<b>C. psittaci</b>	IgG	200	Healthy blood donors	7
		78	Bird owners	24
	IgM	200	Healthy blood donors	1

Antigen substrate	Ig-class	n	Commercial Anti-Chlamydia MIF	
			Specificity (%)	Sensitivity (%)
<b>C. trachomatis</b>	IgA	121	89	82
	IgG	124	88	91
	IgM	204	93	94
<b>C. pneumoniae</b>	IgA	122	82	94
	IgG	122	89	76
	IgM	204	97	93
<b>C. psittaci</b>	IgA	130	97	53 100*
	IgG	128	92	60 86*
	IgM	204	100	100

\*with respect to isolated positive samples in the MIF reference test

## Analytical specificity

The outer membranes of all three Chlamydia species are very similar. By inactivation of the LPS (lipopolysaccharide), cross reactions are significantly reduced but not excluded.

## Literature

1. AWMF S2k Leitlinie (2016). **Infections with Chlamydia trachomatis.**
2. MIQ 35a. **Infektionsimmunologische Methoden (2016).**
3. Robert Koch-Institut. **Infektionen durch Chlamydien (Teil 1): Erkrankungen durch Chlamydia trachomatis.** Epidemiologisches Bulletin Nr. 37 (2009).
4. Robert Koch-Institut. **Infektionen durch Chlamydien (Teil 2): Erkrankungen durch Chlamydia psittaci, Chlamydia pneumoniae und Simkania negevensis.** Epidemiologisches Bulletin Nr. 9 (2010).
5. CDC. **Sexually Transmitted Diseases Treatment Guidelines.** MMWR Vol.64 No.3 (2015).