

Mycoplasma pneumoniae

IgG, IgM, IgA EIA



**Sensitive species-specific assays for diagnosis of
Mycoplasma pneumoniae infection**

- Proven sensitivity and specificity for acute infection
- Objective reading and semi-quantitative results
- Can be run in parallel with Anilabsystems' Chlamydia pneumoniae EIA and Bordetella pertussis EIA tests

Reliable EIA assays for *Mycoplasma pneumoniae* detection

Mycoplasma pneumoniae is Gram-negative bacterium commonly responsible for infections of the upper and lower respiratory tract. It is the most common source of atypical pneumonia, with children and young adults most at risk of infection. Cases may range from mild infection to serious atypical pneumonia.

Traditional diagnostic tests, such as cold agglutinins and complement fixation (CF), are insensitive, complicated and do not distinguish antibody classes. Ani Labsystems' IgG, IgA and IgM EIA assays, however, can be used accurately and specifically to diagnose *M. pneumoniae* infection.

Upon diagnosis, *M. pneumoniae* infections can be treated effectively with the correct choice of antibiotics. Therefore, rapid, sensitive and accurate detection methods are vital.

Superior, sensitive and specific

In tests, the Ani Labsystems' *M. pneumoniae* detection system has been shown to be more specific and more sensitive for acute infection than competitive methods (Table 1). The assays detect IgG-, IgA- and IgM-class antibodies against *M. pneumoniae* in only 2.5 hours, giving objective reading and clear interpretation. The accurate semi-quantitative results enable specific diagnosis and assessment of acute, recent and past infection.

A convenient procedure and ready-for-use reagents

Ani Labsystems' *M. pneumoniae* IgG, IgA and IgM EIA detection kits come with ready-to-use reagents. IgG and IgA kits include calibrators to give semi-quantitative results. The convenient procedures are simple and the same prediluted sample is used for all three assays.

In addition, the tests can be run in parallel with Ani Labsystems' tests for *Chlamydia pneumoniae* and *Bordetella pertussis* using the similar microplate format, procedure and same sample predilution.

Summary of the evaluation studies

Serum samples were analyzed for the assessment of diagnostic sensitivity and specificity of the *Mycoplasma pneumoniae* EIAs.

The samples were: 17 pairs suggestive for acute *Mycoplasma pneumoniae* infection; 21 pairs with proven Respiratory Syncytial virus (RSV) infection; 20 pairs with proven Influenza A infection; 13 single samples with proven Epstein Barr virus (EBV) infection, and 20 single samples and one pair sample with proven *Chlamydia pneumoniae* infection.

The samples were also analyzed in 2 competitive EIAs. The true positive cases for acute *Mycoplasma pneumoniae* were interpreted as an agreement of all three EIA methods. The calculated results are shown in Table 1.

Ani Labsystems' EIAs employing P1-enriched protein were found the most efficient to diagnose reliably acute *Mycoplasma pneumoniae* infection

Procedures

***Mycoplasma pneumoniae* IgG, IgA and IgM EIA**

Dilute the specimen into the sample diluent
5 µl+500 µl (1:101)

For IgG & IgA: use 50 µl of the prediluted sample plus 50 µl of the sample diluent

For IgM: use 50 µl IgG removing reagent and add 50 µl of the prediluted sample

For all three assays:

- Incubate for 1 hour at 37 °C
- Wash
- Add 100 µl conjugate
- Incubate for 1 hour 37 °C
- Wash
- Add 100 µl substrate
- Incubate for 30 minutes at RT in dark
- Add 100 µl stopping solution
- Read at 450 nm

Table 1

	Comp. EIA1 (%)	Comp. EIA2 (%)	Ani Labsystems (%)
Sens.	100	100	100
Spec.	93	64	95
PV pos	74	27	80
PV neg	100	100	100
Efficiency	94	68	96

Ordering Information

6111300	C. pneumoniae IgG EIA	96 wells	€0537
6111310	C. pneumoniae IgA EIA	96 wells	€0537
6111320	C. pneumoniae IgM EIA	96 wells	€0537
6108380	C. pneumoniae IgG/IgM MIFA	20x21 wells	€0537
6108382	C. pneumoniae IgG/IgM MIFA	20x12 wells	€0537
6108390	C. pneumoniae IgA MIFA	20x21 wells	€0537
6108392	C. pneumoniae IgA MIFA	20x12 wells	€0537
6108384	C. pneumoniae slides	5x21 wells	€0537
6111400	M. pneumoniae IgG EIA	96 wells	€€
6111410	M. pneumoniae IgA EIA	96 wells	€€
6111420	M. pneumoniae IgM EIA	96 wells	€€
6111500	B. pertussis IgG EIA	96 wells	€€
6111510	B. pertussis IgA EIA	96 wells	€€
6111520	B. pertussis IgM EIA	96 wells	€€

