



Mycoplasma pneumoniae IgG ELISA

Technology	ELISA
Kit size	96 Tests
Sample material	Serum or Plasma
Sample preparation	1:101 predilution
Sample volume	5 µl
Standard range	1 – 100 U/ml
Incubation	60 min, 30 min, 20 min at RT
Measuring system	TMB at 450 nm
Sensitivity	1.12 U/ml

Special remarks: The *Mycoplasma pneumoniae* IgG antibody ELISA kit has been designed for the detection and the quantitative determination of specific IgG antibodies against *Mycoplasma pneumoniae* in serum and plasma. The antigen used for coating the plates is a purified P1 adhesin from the phylum FH.

Mycoplasmas belong to the Mollicutes class. Common characteristics of the six eubacterial genera is the lack of a bacterial cell wall, osmotic fragility and small dimensions, which allow a penetration through a 0.45 µm filter. Also the genome with 600 kbp is significantly smaller compared with gram-positive and gram-negative bacteria. Out of this reason they have never been found as freely living organisms. In nature Mollicutes depend on a host cell, respectively, on a host organism like a parasite. *Mycoplasma pneumoniae* is a human pathogenic bacterium causing tracheobronchitis and primary atypical pneumonia. Associated with the host cell, surface colonization of human respiratory tract epithelial cells takes place. Also secondary diseases like infarction, encephalitis, chronic neuropathy and the Guillain-Barre syndrome can in some cases be connected with a *M. pneumoniae* infection. In the laboratory, *M. pneumoniae* can be grown without a host cell in rich medium supplemented with 10-20% horse serum. Besides the cold agglutinin test and

complement fixation reaction CF, ELISA is the method of choice, which shows an excellent sensitivity and the possibility to differentiate between the immunoglobulin classes. Specific IgA antibodies were developed more regularly and more rapidly than IgM during an acute infection. IgA titres also started to decrease earlier than IgM or the late-peaking IgG response. It could be shown in various studies, that the determination of all the three immunoglobulin classes is necessary, to monitor each step of the clinical course.

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