



SERION ELISA *classic*

Legionella pneumophila IgG/IgM

Intended use

- Qualitative and quantitative detection of human IgG and IgM antibodies in serum or plasma directed against *Legionella pneumophila* serotypes 1 to 7
- Complement the findings of direct detection methods
- Differential diagnosis in case of atypical pneumonia

Diagnostic Efficiency

The determination of sensitivity and specificity of the SERION ELISA *classic* Legionella pneumophila 1-7 IgG and IgM tests were performed by the analysis of 138 sera from patients with suspected legionellosis which were provided by the National Reference Center for Legionella (Lyon, France) and classified according to *Legionella pneumophila* antibody titers determined by IFT.

Product	Sensitivity	Specificity
SERION ELISA <i>classic</i> Legionella pneumophila 1-7 IgG / IgM	94.3 %	86.5 %

Präzision

SERION ELISA *classic* Legionella pneumophila 1-7 IgG

Sample	Mean value (OD)	Intraassay CV (%) (n=20)	Mean value (OD)	Interassay CV (%) (n=10)
Serum 1	0.764	5.0	0.815	7.3
Serum 2	0.926	4.5	1.027	6.7
Serum 3	1.351	4.7	1.562	5.4

SERION ELISA *classic* Legionella pneumophila 1-7 IgM

Sample	Mean value (OD)	Intraassay CV (%) (n=20)	Mean value (OD)	Interassay CV (%) (n=10)
Serum 1	0.223	4.8	0.262	9.4
Serum 2	0.895	3.6	0.938	6.0
Serum 3	1.480	3.4	1.567	3.1

Pathogen

The family of *legionellaceae* comprises more than 39 different species, which are subdivided into various serovars. The most important human pathogen is *Legionella pneumophila* which comprises 14 serovars. About 80 to 85 % of all Legionella associated pneumonias are caused by serovars 1 to 6.

Disease

The typical legionellosis (Legionnaires' disease) starts two to ten days after infection with uncharacteristic symptoms such as general indisposition, headache, muscle aches and dry cough, chest pain, chill, temperature rise to 39 to over 40 °C. Occasionally, gastrointestinal disturbances accompanied by diarrhoea and vomiting may be early onset symptoms. In 2 to 5 % of cases, severe pneumonia may result from the infection by *Legionella pneumophila* with lethality varying from 10 to 20 %. If not treated, lethality of immunosuppressed patients may increase up to 80 %.

The so called pontiac fever is a benign, non-pulmonary form of legionellosis characterized by a short incubation period of one to two days and mild, flu-like course of disease. The disease starts with headache, muscle- and chest pain, cough and fever. Despite severe discomfort, patients generally recover completely within five days.

Diagnosis

Due to the non-specific nature of the symptoms, diagnosis is primarily based upon the results of laboratory analyses. Rapid tests, which are also suitable for screening purposes, demonstrate the presence of Legionella specific antigens in patient's urine while serological methods serve to establish a differential diagnosis in cases of atypical pneumonia. The SERION ELISA *classic* Legionella pneumophila 1-7 IgG and IgM tests are based on a combination of diagnostically relevant antigens from the serovars 1 to 7.

Highlights

- Use of lysates of *Legionella pneumophila* serovars 1 to 7
- Sensitive demonstration of IgM antibodies for detection of primary infections
- Demonstration of IgG antibodies for confirmation of infections
- Quantification of IgG and IgM antibodies for disease stage monitoring and therapy control
- Differential diagnosis in case of atypical pneumonia

Product	Order No.
SERION ELISA <i>classic</i> Legionella pneumophila 1-7 IgG	ESR106G
SERION ELISA <i>classic</i> Legionella pneumophila 1-7 IgM	ESR106M

SERION ELISA *control*

Please visit our website for more information.