



## SERION ELISA *classic* Measles Virus IgG/IgM

### Intended use

- Qualitative and quantitative detection of human IgG and IgM antibodies in serum or plasma directed against Measles Virus
- Detection of IgM antibodies for determination of acute infections
- Detection of IgG antibodies for determination of immune status
- Demonstration of intrathecally synthesized IgG antibodies in *cerebrospinal fluid*

### Diagnostic Efficiency

To evaluate the performance characteristics of the SERION ELISA *classic* Measles Virus IgG, 195 serum samples from seronegative donors, patient samples, sera from children and unselected samples were examined in comparison to Measles Virus IgG ELISA test system from another manufacturer. The SERION ELISA *classic* Measles Virus IgM test was validated by the analysis of 249 serum samples from blood donors, pregnant women and patients with suspected Measles Virus infection as well as samples from interlaboratory tests using two ELISA from leading European manufacturers as reference assays.

Product	Sensitivity	Specificity
SERION ELISA <i>classic</i> Measles Virus IgG	>99 %	95.0 %
SERION ELISA <i>classic</i> Measles Virus IgM	98.9 %	>99 %

### Precision

#### SERION ELISA *classic* Measles Virus IgG

Sample	Mean value (OD)	Intraassay CV (%) (n=20)	Mean value (OD)	Interassay CV (%) (n=10)
Serum 1	0.166	2.9	1.218	3.6
Serum 2	0.450	1.9	0.793	5.9
Serum 3	1.144	1.7	0.257	5.5

## SERION ELISA *classic* Measles Virus IgM

Sample	Mean value (OD)	Intraassay CV (%) (n=20)	Mean value (OD)	Interassay CV (%) (n=10)
Serum 1	0.238	1.9	0.325	9.3
Serum 2	0.569	2.1	1.689	5.2
Serum 3	1.135	2.8	0.897	5.2

### Pathogen

Measles Viruses occur worldwide and belong to the family of *paramyxoviridae*. According to estimations by the WHO (World Health Organization) one million individuals die annually as a consequence of Measles Virus infections. The pathogen is transmitted by close contact with infected individuals primarily by droplet infection. Due to the high infectivity of the virus, measles is usually acquired during childhood.

### Disease

After an incubation period of 10 to 12 days Koplik's spots typically appear on oral mucosa in 60 to 70 % of cases. In the course of the prodromal period flu-like symptoms may escalate until the typical measles exanthema arises with sharply increasing fever. The exanthema spreads from face to the extremities. The clinical symptoms peak within several days with a corresponding rapid recovery. Complications occur frequently, mainly pneumonia and

encephalitis. Infection results in a life-long immunity. A combination of attenuated live vaccines for mumps, measles and rubella (MMR) has been available for several years.

### Diagnosis

Demonstration of IgM antibodies is commonly used as evidence for an acute infection and provides positive test results early on with the onset of symptoms. The demonstration of IgG antibodies serves primarily for immune status and vaccination control as well as for confirmation of Measles Virus infections. The detection of IgG antibodies in CSF samples is particularly recommended in cases of suspected encephalitis and multiple sclerosis.

## Highlights

- Sensitive IgM detection for the diagnosis of acute infections
- Demonstration of IgG antibody activity for confirmation of Measles Virus infection, for immune status determination and vaccination control with results expressed in mIU/ml, referenced to the international standard of the WHO
- Detection of intrathecally synthesized IgG antibodies for CSF diagnostics

Product	Order No.
SERION ELISA <i>classic</i> Measles Virus IgG	ESR102G
SERION ELISA <i>classic</i> Measles Virus IgM	ESR102M

### SERION ELISA *control*

Please visit our website for more information.