



## Measles Virus

Measles virus infections typically occur in the childhood. In industrial nations difficult complications are rare, but in undeveloped countries – especially with inadequate diet – the measles virus is a serious risk for children.



Humans are the only known natural hosts of measles. Measles are spread through respiration (contact with fluids of an infected person's nose and mouth, either directly or through aerosol transmission), and are high contagious.

After invasion in the pharynx and replication in lymphoid tissues the virus is distributed in two episodes. First catarrhal symptoms may appear like cough, coryza (runny nose) and conjunctivitis, accompanied by fever for at least three days. Thereafter the oral mucosa displays an enanthem and the tiny white "Koplik's spot". Then the fever once again rises (may reach up to 40°C) and the typical measles exanthem manifests. Possible complications include otitis in the form of bacterial superinfection as well as pneumonia and encephalitis. Hereof 3 forms can be differentiated:

Acute, post infectious form: An autoimmune reaction against neuralgic tissue, the lethality rate is high.

Acute, progressive form: Rare complication with immunocompromised patients.

Sub acute, sclerosing panencephalitis (SSPE): Nucleocapsids accumulate in brain cells, whereby few or no viral progeny are produced for lack of matrix protein. This disease occurs between the ages of 1-20, involves loss of memory and personality changes and usually results in death within 6-12 months.

Species	Disease	Symptoms	Mechanism of infection
Measles virus (Morbillivirus)	Measles	After an incubation period of 4-12 days, the following symptoms may appear: catarrhal symptoms (cough, coryza, conjunctivitis), fever, Koplik's spots (white spots on the muscosa), exanthem  Possible complications: bacterial superinfection encephalitis	Aerosol transmission by droplets

Infections may be diagnosed by:

PCR

Serology: Determination of specific antibodies based on the ELISA-technique

### **NovaLisa™ Measles virus IgG/IgM ELISA:**

The NovaLisa™ Measles virus IgG/IgM ELISA is intended for the qualitative determination of IgG-/IgM- class antibodies against measles viruses in human serum or plasma (citrate).

#### **Antigens:**

Purified measles virus antigens of strain Edmonton (ATCC VR-24)

**Specific performance characteristics:**

	Intraassay			Interassay			Sensitivity %	Specificity %
	n	Mean	CV %	n	Mean	CV %		
IgG	18	0,36	9,4	12	9,4	5,0	>95	>95
	24	3,11	3,2	12	76,9	1,5		
IgM	20	1,3	7,7	14	37	4,2	>95	>95
	24	0,46	6,9	14	12	5,6		

**Order information:**

ELISA	Number of determinations	Product number
Masernvirus IgG	96	MEAG0330
Masernvirus IgM	96	MEAM0330