Measles Vaccines Antibody ELISA Kits, Recombinant Proteins, Peptides and Antibodies

Measles, also known as Rubeola or German measles (not to be confused with rubella, a different disease) or Morbilli, is an infection of the respiratory system caused by a virus, specifically a paramyxovirus of the genus Morbillivirus. Morbilliviruses, like other paramyxoviruses, are enveloped, single-stranded, negative-sense RNA viruses. Symptoms include fever, cough, runny nose, red eyes and a generalized, maculopapular, erythematous rash. Measles is spread through respiration (contact with fluids from an infected person's nose and mouth, either directly or through aerosol transmission), and is highly contagious—90% of people without immunity sharing living space with an infected person will catch it. The infection has an average incubation period of 14 days (range 6–19 days) and infectivity lasts from 2–4 days prior, until 2–5 days following the onset of the rash (i.e. 4–9 days infectivity in total).

Clinical diagnosis of measles requires a history of fever of at least three days together with at least one of the three C's (cough, coryza, and conjunctivitis). Alternatively, laboratory diagnosis of measles can be done with confirmation of positive measles IgM antibodies or isolation of measles virus RNA from respiratory specimens. In children, where phlebotomy is inappropriate, saliva can be collected for salivary measles specific IgA test. Positive contact with other patients known to have measles adds strong epidemiological evidence to the diagnosis. The contact with any infected person in any way, including semen through sex, saliva, or mucus can cause infection. In developed countries, most children are immunized against measles by the age of 18 months, generally as part of a three-part MMR vaccine (measles, mumps, and rubella). In developing countries where measles is highly endemic, the WHO recommend that two doses of vaccine be given at six months and at nine months of age. Vaccine efficacy can be measured by the number of reported cases in the USA. For measles, 894,134 cases reported in 1941 compared to 288 cases reported in 1995 resulted in a 99.97% decrease in reported cases; for mumps, 152,209 cases reported in 1968 compared to 840 cases reported in 1995 resulted in a 99.45% decrease in reported cases; and for rubella, 57,686 cases reported in 1969 compared to 200 cases reported in 1995 resulted in a 99.65% decrease. MMR II vaccine (Merck) is a live virus vaccine for vaccination against measles (rubeola), mumps, and rubella (German measles). Atenuated Measle virus, derived from Enders' attenuated Edmonston strain and propagated in chick embryo cell culture, is used in MMRII vaccine

MMR II is supplied freeze-dried (lyophilized) and contains live viruses. The vaccine is a mixture of three live attenuated viruses, administered via injection. The shot is generally administered to children around the age of one year, with a second dose before starting school (i.e. age 4/5). The vaccine is sold by Merck as M-M-R II, GlaxoSmithKline Biologicals as Priorix, Serum Institute of India as Tresivac, and Sanofi Pasteur as Trimovax. The component viral strains of MMR vaccine were developed by propagation in animal and human cells. The live viruses require animal or human cells as a host for production of more virus. For example, in the case of mumps and measles viruses, the virus strains were grown in embryonated hens' eggs and chick embryo cell cultures. This produced strains of virus which were adapted for the hens egg and less well-suited for human cells. These strains are therefore called attenuated strains. They are sometimes referred to as neuroattenuated because these strains are less virulent to human neurons than the wild strains. The Rubella component, Meruvax, is propagated using a human cell line (WI-38, named for the Wistar Institute) derived in 1961 from embryonic lung tissue. The MMRV vaccine, a combined measles, mumps, rubella and varicella vaccine, has been proposed as a replacement for the MMR vaccine to simplify administration of the vaccines.

ADI has developed antibody ELISA kits to determine the efficacy of various existing Measles vaccines or test new vaccines. ADI is further expanding the antibody ELISAs to measure IgG (and IgG1, IgG2a, IgG3, IgG4) and IgM classes.

Measles vaccine Related ELISA kits

ELISA Kit Description	Species	IgA Specific	IgG Specific	IgM Specific
Measles Vaccine antibody ELISA kits	Human	530-120-HMA	530-100-HMG	530-110-HMM
	Mouse	530-150-MMA	530-130-MMG	530-140-MMG

Measles Related Antibodies, Peptides, and Recombinant Proteins Ordering Information

Catalog#	Catalog#	Product Description	Product Type
Measles Virus	MESL11-A	Monoclonal Anti-Measles (Rubeola/Edmonston strain) Virus IgG	Antibodies
	MESL11-A	Rabbit Anti-Measles (Rubeola/Edmonston strain) Virus IgG	Antibodies
	MESL15-N-500	Measles (Rubeola) Virus (Edmonston) proteins/antigen extract	Pure protein
Measles Agglutinin	RP-1609	Recombinant (E. Coli) purified Measles virus hemagglutinin immunodominant mosaic (106-114+519-550) protein	Pure protein
	RP-1610	Recombinant (E. Coli) purified Measles virus hemagglutinin immunodominant region (399-525) protein	Pure protein
Measles Agglutinin	RP-1611	Recombinant (E. Coli) purified Measles virus nucleocapsid protein (89-165)	Pure protein
	RP-655	Recombinant Measles Virus Hemagglutinin Mosaic (1-30,115-150,379-410)	Pure protein
Measles polymerase	RP-1612	Recombinant (E. Coli) purified Measles virus Large Polymerase (2059-2183)	Pure protein
	RP-1613	Recombinant (E. Coli) purified Measles virus Large Polymerase (58-149)	Pure protein
	RP-651	Recombinant Measles Virus Large Polymerase (58-149)	Pure protein
	RP-653	Recombinant Measles Virus Large Polymerase (2059-2183)	Pure protein
Nonstructural protein	RP-1614	Recombinant (E. Coli) purified Measles virus Non-Structural C-Protein (1-51aa)	Pure protein
	RP-652	Recombinant Measles Virus Non-Structural C-Protein (1-51)	Pure protein

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