

Product Specification Sheet

**Mumps virus (Enders) Virus Antigen**

□ **Cat. #** MUMS15-N-500

Mumps virus (Enders) proteins/antigens extract

**SIZE:** 0.5 ml

Mumps and epidemic parotitis is a viral disease of the human species, caused by the mumps virus. Painful swelling of the salivary glands (classically the parotid gland) is the most typical presentation. Painful testicular swelling (orchitis) and rash may also occur. The symptoms are generally not severe in children. The disease is generally self-limited, running its course before receding, with no specific treatment apart from controlling the symptoms with pain medication. Mumps is a contagious disease that is spread from person to person through contact with respiratory secretions such as saliva from an infected person. Mumps can also be spread by sharing food and drinks. A person infected with mumps is contagious from approximately 6 days before the onset of symptoms until about 9 days after symptoms start.

A physical examination confirms the presence of the swollen glands. Usually the disease is diagnosed on clinical grounds and no confirmatory laboratory testing is needed. If there is uncertainty about the diagnosis, a test of saliva, or blood may be carried out; a newer diagnostic confirmation, using real-time nested polymerase chain reaction (PCR) technology, has also been developed. An estimated 20%-30% of cases are asymptomatic. As with any inflammation of the salivary glands, serum amylase is often elevated.

Before the development of vaccination and the introduction of a vaccine, it was a common childhood disease worldwide. The most common preventative measure against mumps is immunization with a mumps vaccine. The vaccine may be given separately or as part of the MMR immunization vaccine which also protects against measles and rubella. The efficacy of the vaccine depends on the strain of the vaccine, but is usually around 80%. The Jeryl Lynn strain is most commonly used in developed countries but has been shown to have reduced efficacy in epidemic situations. The Leningrad-Zagreb strain commonly used in developing countries appears to have superior efficacy in epidemic situations

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). MUMPSVAX\* (Mumps Virus Vaccine Live), the Jeryl Lynn\*\* (B level) strain of mumps virus propagated in chick embryo cell culture.

**Source of Antigen and Antibodies**

Mumps virus (enders strain) was grown in BSC-1 cells. Optimally infected cells are harvested, disrupted by sonication in culture medium and the subject to low speed centrifugation. The supernatant from the infected culture is concentrated using crossflow filtration. Mumps antigen **inactivated** using gamma radiation. The resulting preparation contains high concentration of virus and viral components as well as some cellular material suspended in 1969B buffer. This is also referred to as grade 2 antigen. It contains 0.09% azide as a preservative.

Final preparation contains no infectious material. However, all precautions should be taken to avoid contamination.

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Recommended Usage**

The antigen should be sonicated for 5-10 seconds immediately prior to use to ensure uniformity of solution. The antigen is suitable as antigen in a variety of ELISA, Western and other immunoassays.

**ELISA**

**Latex agglutination/Neutralization**

Optimal dilution must be tested by the user under specified conditions (range 1:100-1:1,000 depending upon the sensitivity of the assay).

**General References:** Hviid A (2008) Lancet 371, 932; Bedford H (2005) Nurs. Times 101, 3; 39; Peltola H (2007) Clin. Infec. Dis. 45, 459

\*This product is for in vitro research use only.

**Related items from ADI...**

Catalog#	ProdDescription
MUMS11-S	Anti-Mumps virus (Enders) Virus antiserum
MUMS12-M	Monoclonal Anti-Mumps virus (Enders) Virus IgG
520-100-HMG	Human Anti-Mumps Virus (parotitis) IgG ELISA
520-110-HMM	Human Anti-Mumps Virus (parotitis) IgM ELISA
520-120-HMA	Human Anti-Mumps Virus (parotitis) IgA ELISA
520-130-MMG	Mouse Anti-Mumps Virus (parotitis) IgG ELISA
520-140-MMG	Mouse Anti-Mumps Virus (parotitis) IgM ELISA
520-150-MMG	Mouse Anti-Mumps Virus (parotitis) IgA ELISA

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