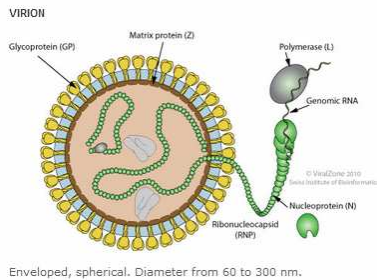


Product Specification Sheet

**Lymphocytic choriomeningitis virus (LCMV) Nucleoprotein (NP) Antibodies and Controls**

<input type="checkbox"/> Cat# LCMV11-MNC	Mouse Anti-LCMV Nucleoprotein (NP) antibody negative control serum	<b>Size: 1 ml</b>
<input type="checkbox"/> Cat# LCMV11-MPC	Mouse Anti-LCMV Nucleoprotein (NP) antibody positive control serum	<b>Size: 1 ml</b>

Animals, just like humans, are susceptible to various bacterial and viral infections. Animals are used widely in biomedical research. Laboratory animal infections may compromise the health of the animals and ultimately the research data derived from them. Microbial infections alter not only the animal behavior but also the biological responses. Apart from the use of whole animals for experimentations, numerous animal cell lines and proteins are also derived from animals and used in biomedical research. Animals or animal-derived products are transported from one part of the world to another in a matter of days. So there is great potential for the diseases to spread very quickly. Many infections are asymptomatic and without any overt clinical symptoms. Detection of microbial infections has relied largely on serological screening and presence of microbial antigens or antibodies.



Lymphocytic choriomeningitis (LCM), is a rodent-borne viral infectious disease that presents as aseptic meningitis, encephalitis or meningoencephalitis. Its causative agent is the Lymphocytic Choriomeningitis Virus (LCMV), a member of the family

Arenaviridae. LCMV is an enveloped virus with a helical nucleocapsid containing an RNA genome consisting of two single-stranded RNA segments. The L strand is ambisense RNA and encodes the polymerase and z protein while the S strand is ambisense and encodes the nucleoprotein and glycoproteins. LCMV-NP encapsidates the genome, protecting it from nucleases. LCMV is naturally spread by the common house mouse. Once infected, these mice can become chronically infected by maintaining virus in their blood and/or persistently shedding virus in their urine. Other modes of mouse-to-mouse transmission include nasal secretions, milk from infected dams, bites, and during social grooming within mouse communities. Airborne transmission also occurs. Most rodents are susceptible to LCMV infection, with hamsters especially sensitive. Rats are naturally resistant. LCMV is zoonotic. LCMV infection results in acute immune-mediated disease after one week and lesions are seen are characteristics of LCMV (lymphocytic infiltrate in liver, adrenal, kidney, and lung and immune-complex glomerulonephritis and vasculitis). Diagnosis best accomplished through serology (IFA, MFIA or ELISA). Testing of animal colonies for LCMV antibodies should be part of regular health monitoring. Antibodies to LCMV-NP have been used for the diagnosis of LCMV in animals.

**Source of Antigen and Antibodies**

Pooled Rat serum (Sprague-Dawley, adult, mixed sex) or mouse (Balb/c, adult, mixed sex) containing antibodies to LCMV-NP as tested by ADI ELISA (#AE-30200-1). The positive serum tested positive with A450 values of >2.0. The negative serum produced A450 values of >0.3. Control sera are provide in PBS, pH 7.5 containing 0.1% proclin-300 (preservative) in liquid or lyophilized in the same buffer. Store liquid at 4oC for up to 3 months at 4oC or frozen in suitable size aliquots. Store powder at -20oC in. Reconstitute the powder in 1 ml water.

Recommended as positive and negative controls for anti-LCMV NP protein IgG by ELISA. The controls may or may not be antibody positive against the whole LCMV or other LCMV.

Use undiluted in 50-100 ul per well or dilute as necessary depending upon the sensitivity of the detection.

**References:** Takimoto, K (2008) Exp. Animal 57, 357-365; Childs JE (1992) *Am. J. Trop. Med. Hyg.* 47, 27-34; Hamberger FR (1995) *Labn. Animl. Sci.* 45, 493-496; Dykewicz CA, (1992) *JAMA* 267, 1349-53; Baker DG (2003) *In Natural Pathogens of Lab. Animals*, pp 385.

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

**Related material available from ADI**

- Mouse Anti-LCMV antibody ELISA kit
- Recombinant LCMV-NP protein and antibodies
- Mouse anti-LCMV IgG positive and negative controls.

LCMV11-MNC 121120A

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