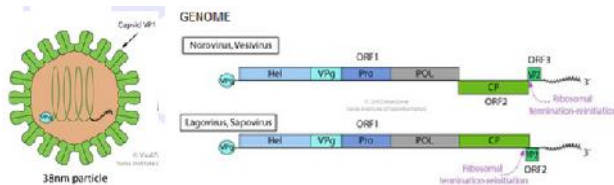


Product Specification Sheet

**Murine Norovirus 1 Capsid Protein 1 (MNV-VP1) Antibodies and Controls**

<input type="checkbox"/> MNV11-MNC	Mouse Anti-Norovirus 1 Capsid Protein 1 (MNV-VP1) antibody negative control serum	1 ml
<input type="checkbox"/> MNV11-MPC	Mouse Anti-Norovirus 1 Capsid Protein 1 (MNV-VP1) antibody positive control serum	1 ml
<input type="checkbox"/> MNV12-RNC	Rat Anti-Norovirus 1 Capsid Protein 1 (MNV-VP1) antibody negative control serum	1 ml
<input type="checkbox"/> MNV12-RPC	Rat Anti-Norovirus 1 Capsid Protein 1 (MNV-VP1) antibody positive control serum	1 ml

Noroviruses are a genetically diverse group of single-stranded RNA, non enveloped viruses in the Calciviridae family. The viruses are transmitted by fecally contaminated food or water, by person-to-person contact, and via aerosolization of the virus and subsequent contamination of surfaces. Noroviruses are the most common cause of viral gastroenteritis in humans. Norovirus affects people of all ages. The genus name Norovirus is derived from Norwalk virus, which causes approximately 90% of epidemic nonbacterial outbreaks of gastroenteritis around the world, and may be responsible for 50% of all foodborne outbreaks of gastroenteritis in the United States.



MNV is closely related to the human Norovirus. Mouse norovirus (MNV), a non-enveloped ss-RNA virus (*Calciviridae*) and the most prevalent viral infection in laboratory animal facilities, is highly contagious in causing a mild, persistent enteric infection. MNV replicates in macrophages and dendritic cells, with the potential to alter research data. Noroviruses contain a positive-sense RNA genome of approximately 7.5 kbp, encoding a major structural protein (VP1) of about 58~60 kDa and a minor capsid protein (VP2). The most variable region of the viral capsid is the P2 domain, which contains antigen-presenting sites and carbohydrate-receptor binding regions.

MNV infection may be diagnosed by ELISA, measuring rapidly rising antibody titers (8-12 days after infection) to MNV antigen. Mice infected with MNV are not suitable for animal research; in addition to lung changes, MNV may predispose to secondary bacterial infection, cause infertility, and death in susceptible strains. Besides infecting animals, MNV may also contaminate cell lines, transplantable tumors and other biological products; these should be tested by mouse antibody production (MAP), using ELISA to detect anti-MNV after immunization. A recent study in the USA found approx. 22% mouse samples were positive for MNV.

**Source of Antibodies**

Pooled Rat serum (Sprague-Dawley, adult, mixed sex) or mouse (Balb/c, adult, mixed sex) containing antibodies to MNV as tested by ADI ELISA (#AE-300300-1) and diluted in PBS, pH 7.4 and 0.1% azide. 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-MNV IgG by ELISA. The controls may or may not be antibody positive against the individual viral proteins.

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

**References:** Faisca P (2006) Res. Vet. Sci. 82, 115-125; Kraft V (1986) Lab. Animl. 36, 271-276; Eaton GJ (1982) Lab. Anim. Sci. 32, 384-386; Schioda T (1983) Nucl. Acid. Res. 11, 7317-7330; Parker JC (1979) C. Clin. Microbiol. 9, 444-447; Ishida N (1978) Adv. Vir. Res. 23, 349-383; Fox JG (1984) Lab. Anim. Med. pp62-65; Wan C-H (1995) J. Clin. Microbiol. 2007-2011

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

**Related material available from ADI**

Catalog#	ProdDescription
MNV11-MNC	Mouse Anti-Sendai/(SeV/Parainfluenza virus 1) antibody negative control serum
MNV11-MPC	Mouse Anti-Sendai/(SeV/Parainfluenza virus 1) antibody positive control serum
MNV11-S	Chicken Anti-Sendai/(SeV/Parainfluenza virus 1) antiserum
MNV12-RNC	Rat Anti-Sendai/(SeV/Parainfluenza virus 1) antibody negative control serum
MNV12-RPC	Rat Anti-Sendai/(SeV/Parainfluenza virus 1) antibody positive control serum
MNV12-S	Goat Anti-Sendai/(SeV/Parainfluenza virus 1) antiserum
SEND13-M	Monoclonal Anti-Sendai(SeV/Parainfluenza virus 1) IgG
SEND21-M	Monoclonal Anti-Parainfluenza virus 3 IgG
SEND22-M	Monoclonal Anti-Parainfluenza virus 2 IgG
SEND23-S	Goat Anti-Sendai (Sev/Parainfluenza virus 2/3) antiserum
AE-300600-1	Mouse Sendai/(SeV/Parainfluenza virus 1) Antibody ELISA Kit, 96 tests
AE-300610-1	Rat Sendai/(SeV/Parainfluenza virus 1) Antibody ELISA Kit, 96 tests

MNV11-MNC 150604A