ALPHA DIAGNOSTIC INTERNATIONAL

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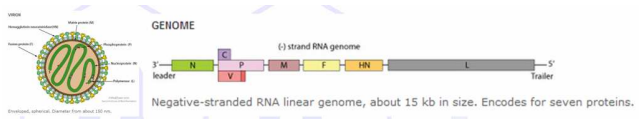
Product Specification Sheet

Mouse Pneumonia Virus (PVM) nucleoprotein (PVM-NP) Antibody controls

☐ PVMNP11-MNC	Mouse Anti- Mouse Pneumonia Virus nucleoprotein (PVM-NP) antibody negative control serum	1 ml
☐ PVMNP11-MPC	Mouse Anti- Mouse Pneumonia Virus nucleoprotein (PVM-NP) antibody positive control serum	1 ml
☐ PVMNP12-RNC	Rat Anti- Mouse Pneumonia Virus nucleoprotein (PVM-NP) antibody negative control serum	1 ml
☐ PVMNP12-RPC	Rat Anti- Mouse Pneumonia Virus nucleoprotein (PVM-NP) antibody positive control serum	1 ml

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. So there is great potential for the diseases to spread very quickly.



Paramyxoviruses are viruses of the Paramyxoviridae family of the Mononegavirales order; they are negative-sense single-stranded RNA viruses responsible for a number of human and animal diseases. Virions are enveloped and can be spherical, filamentous or pleomorphic. Fusion proteins and attachment proteins appear as spikes on the virion surface. Matrix proteins inside the envelope stabilise virus structure. The nucleocapsid core is composed of the genomic RNA, nucleocapsid proteins, phosphoproteins and polymerase proteins. The gene sequence is:

A number of important human diseases are caused by paramyxoviruses. These include mumps, measles, and respiratory syncytial virus (RSV), which is the major cause of bronchiolitis and pneumonia in infants and children. Paramyxoviruses are also responsible for a range of diseases in other animal species, for example canine distemper virus (dogs), phocine distemper virus (seals), cetacean morbillivirus (dolphins and porpoises), Newcastle disease virus (birds), and rinderpest virus (cattle). **Pneumonia virus of mice (PVM)** is a member of the subfamily Pneumovirinae and is the closest known relative of respiratory syncytial virus. Both viruses cause pneumonia in their respective hosts. Serological evidence revealed that PVM is prevalent among many species of laboratory rodents, in which it causes a latent or inapparent infection. There is serologic evidence suggesting widespread exposure of humans to PVM. The degree of amino acid sequence identity between PVM and RSV ranges from 10% (M2-2 protein) to 60% (nucleocapsid N protein). The pathogenesis of PVM in inbred mice varies considerably between strains; in the commonly used BALB/c strain, the virus is highly pathogenic. There has been serologic evidence of infection of a number of other laboratory animals, including other rodent species, rabbits, and nonhuman primates.

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

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.
Shipping: 4oC for solutions and room temp for powder.

Source of Antibodies

Pooled Rat serum (Sprague-Dawley, adult, mixed sex) or mouse (Balb/c, adult, mixed sex) containing antibodies to PVM_NP as tested by ADI ELISA (#AE-310400-1 & AE-400410-1). 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-PVM-NP IgG by ELISA. The controls may or may not be antibody positive against the whole PVM-NP or related viruses.

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

References: Barr J (1991) J. Gen. Virol. 72, 677-685; Thorpe LC (2005) J. Gen. Virol. 86, 159-169; Stokes HL (2003) J. Gen. Virol. 84, 2679-2683; Bossert B (2003) J. Virol. 77, 8661-8668; Chambers P (1990) Virus res. 18, 263-270; Easton AJ (1997) Virus Res. 48, 27-33; Pringle CR (1986) J. Ge. Virosl. 67, 975-982; Brock LG (2012) J. Virsol. 86, 5829-5843

*This product is for In vitro research use only.

Related material available from ADI

Catalog#	ProdDescription
PVMNP11-MNC	Mouse Anti-Mouse Pneumonia Virus (PVM) nucleoprotein antibody negative control serum
PVMNP11-MPC	Mouse Anti-Mouse Pneumonia Virus (PVM) nucleoprotein antibody positive control serum
PVMNP12-RNC	Rat Anti-Mouse Pneumonia Virus (PVM) nucleoprotein antibody negative control serum
PVMNP12-RPC	Rat Anti-Mouse Pneumonia Virus (PVM) nucleoprotein antibody positive control serum
PVMNP14-C	Recombinant purified Mouse Pneumonia Virus (PVM) nucleoprotein control for Western blot
PVMNP14-S	Rabbit Anti-Mouse Pneumonia Virus (PVM) nucleoprotein antiserum
PVMNP15-R-10	Recombinant ((E. coli, his-tag, ~44 Kda, full length, >95%) Mouse Pneumonia Virus (PVM) nucleoprotein
AE-310400-1	RecombiVirus Mouse Pneumonia Virus (PVM) Antibody ELISA Kit, 96 tests
AE-310410-1	RecombiVirus Rat Pneumonia Virus (PVM) Antibody ELISA Kit, 96 tests

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