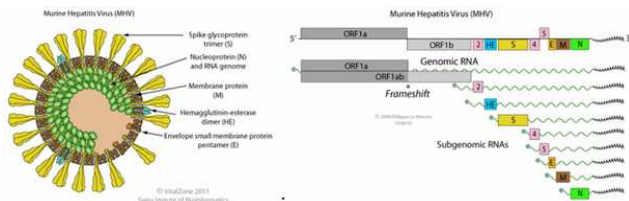


Product Specification Sheet

Mouse Hepatitis virus (MHV/Coronavir) Spike Protein S1 Antibodies and Controls

<input type="checkbox"/> MHVS11-MNC	Mouse Anti-Mouse Hepatitis virus Spike Protein S1 (MHV-S1) antibody negative control serum	1 ml
<input type="checkbox"/> MHVS11-MPC	Mouse Anti-Mouse Hepatitis virus Spike Protein S1 (MHV-S1) antibody positive control serum	1 ml
<input type="checkbox"/> MHVS12-RNC	Rat Anti-Mouse Hepatitis virus Spike Protein S1 (MHV-S1) antibody negative control serum	1 ml
<input type="checkbox"/> MHVS12-RPC	Rat Anti-Mouse Hepatitis virus Spike Protein S1 (MHV-S1) 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. 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.



Mouse hepatitis virus is a virus of the family Coronaviridae, genus coronavirus. Mouse hepatitis virus (MHV) is a coronavirus that causes an epidemic murine illness with high mortality, especially among colonies of laboratory mice. Prior to the discovery of SARS-CoV, MHV had been the best-studied coronavirus both in vivo and in vitro as well as at the molecular level. Some strains of MHV cause a progressive demyelinating encephalitis in mice which has been used as a murine model for multiple sclerosis. Coronaviruses are enveloped viruses with a positive-sense RNA genome and with a nucleocapsid of helical symmetry. The genomic size of coronaviruses ranges from approximately 26 to 32 kb, extraordinarily large for an RNA virus. The name "coronavirus" is derived from the Latin corona, meaning crown or halo, and refers to the characteristic appearance of virions under electron microscopy (E.M.) with a fringe of large, bulbous surface projections creating an image reminiscent of the solar corona. This morphology is actually formed by the viral spike (S) peplomers, which are proteins that populate the surface of the virus and determine host tropism. Coronaviruses primarily infect the upper respiratory and gastrointestinal tract of mammals and birds. Four to five different currently known strains of coronaviruses infect humans. Proteins that contribute to the overall structure of all coronaviruses are the spike (S), envelope (E), membrane (M) and nucleocapsid (N). MHV diagnosis by serology (histopathology, PCR, IFA or ELISA). MHV spike protein S1 precursor (precursor 1324-aa, 15-1324 aa mature protein; 15-717 aa (S1); 718-1324 (S2). MHV-S1 protein has been used for the diagnosis of MHV infection.

Source of Antibodies

Pooled Rat serum (Sprague-Dawley, adult, mixed sex) or mouse (Balb/c, adult, mixed sex) containing antibodies to MHV-S1 as tested by ADI ELISA (#AE-300700-1 for mouse and #AE-300710-1 for rat antibodies). 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-MHV S1 protein IgG by ELISA. The controls may or may not be antibody positive against the whole MHV.

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

References: Barthold SW (1993) Disease. Contemp Topics Lab Anim Sci 43: 276-284; Homberger FR . (1997) Virus Lab Anim 31: 97-115; Compton SR (1998) Lab Anim Sci 48:6-7; Fujiwara KS (1976) Lab. Anim. Sci. 26, 153-159; Rowe WP (1963) Prox. Soc. Exp. Biol. Med. 112, 161-165; Peters RL (1979) J. Clin. Microbiol. 10, 595-597; Luytjes W (1987) Virol. 161, 479-487

*This product is for In vitro research use only.

Related material available from ADI

Please see a complete list of Animal Virus health screening ELISA kits at:

http://www.4adi.com/objects/catalog/product/extras/Recombivirus_Animal_Viruses_ELISAs_Flr.pdf

Catalog#	ProdDescription
AE-300700-1	RecombiVirus Mouse Hepatitis virus (MHV/Coronavir) IgG ELISA Kit, 96 tests
AE-300710-1	RecombiVirus Rat Hepatitis virus (MHV/Coronavir) IgG ELISA Kit, 96 tests
AE-300800-1	Mouse Lactate Dehydrogenase Elevating (LDV/LDHV) Virus IgG ELISA Kit, 96 tests
AE-300810-1	Rat Lactate Dehydrogenase Elevating (LDV/LDHV) Virus IgG ELISA Kit, 96 tests
AE-300900-1	RecombiVirus Mouse Minute Virus (MVM) IgG ELISA Kit, 96 tests
AE-300910-1	RecombiVirus Rat Minute Virus (MVM) IgG ELISA Kit, 96 tests
AE-310110-1	RecombiVirus Rat Kilham Virus (KRV) IgG ELISA Kit, 96 tests
AE-310210-1	RecombiVirus Rat Toolan's H-1 Virus (H-1/THV) IgG ELISA Kit, 96 tests
AE-310310-1	RecombiVirus Rat sialodacryoadenitis Virus (SDAV) IgG ELISA Kit, 96 tests
AE-310400-1	RecombiVirus Mouse Pneumonia Virus (PVM) IgG ELISA Kit, 96 tests
AE-310410-1	RecombiVirus Rat Pneumonia Virus (PVM) IgG ELISA Kit, 96 tests
MHVS11-MNC	140430A