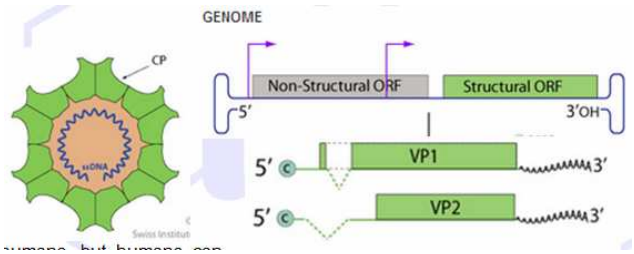
Product Specification Sheet

Recombinant Mouse Parvovirus Capsid protein 2 (MPV-VP2) Antibodies and Controls

□ **Cat #** MPV21-R-10 Recombinant Mouse MPV-VP2 protein **SIZE**: 10 ug

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.



Parvovirus casually applied to all the viruses in the Parvoviridae taxonomic family and also the taxonomic name of the Parvovirus genus within the Parvoviridae family. Parvoviruses (from Latin parvus meaning small) are typically linear, non-segmented single-stranded DNA viruses, with an average genome size of 5Kb. Parvoviruses tend to be specific about the taxon of animal they will infect. No members of the genus Parvovirus are currently known to infect humans, but humans can be infected by viruses within three other genera from the family Parvoviridae, including the one popularly known by the common name Parvovirus B19. The viral capsid of a parvovirus is made up of two or three proteins, known as **VP1-3** that form an icosahedral structure that is resistant to acids, bases, solvents and temperature up to 50°C. Structural protein (NS1-2) are conserved and involved in transcription and virus replication. Capsid proteins (VP1-3) exhibit heterogeneity among different parvoviruses. Parvovirus diagnosis is by serology and ELISA. MPV is most pathogenic for haematopoietic cells than **mouse parvoviruses (MPVs): Species**: **Minute virus of mouse (MVM) or mice minute virus (MMV), Kilham rat virus (KRV)**, Rat **H-1** virus (**Toolan's virus**), mouse parvovirus (MPV), hamster (HaPV) and rat parvovirus (RPV-1a). **Natural hosts**: Vertebrates. **Transmission**: Respiratory, oral droplets of fecal oral-route. **Geography**: Worldwide.

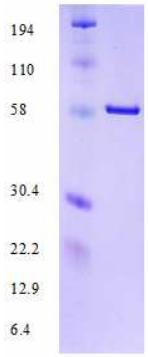
Storage

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 Antigen



MPV-VP2 was expressed in E. Coli as his-tag fusion protein (full length, purity >95%, ~60 KDa). Purified protein is supplied in 50 mM Tris, pH 8, 0.25M NaCl, 5mM beta-mercaptoethanol,, 0.5mM ETDA, 0.25M imidzazole, and 8M Urea (or see lot sp. conc on the vial).

It is suitable for ELISA, Western or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

Recommended Usage

Western Blotting: load 100-200 ng/well.

ELISA (50-100 ng antigen/well).

Specificity & Cross-reactivity

MPV-VP1 and VP2 are produced as a results of alternative splicing and the two proteins have significant overlap (see fig above). MPV-VP2 is 90-100% conserved in various MPV subtypes (type 1-5). Therefore, anti-MPV-VP2 (#MPV21-S) may potentially crossreacts with various mouse parvoviruses. There is significant sequence homology of VP2 with related parvoviruses: Mouse and rat minute virus VP2 (69-72%), Kilham rat virus (65-67%), Hamster parvovirus (66%), rat parvovirus (60%) and canine parvovirus 2a/b (52%). Antibody crossreactivity of MPV-VP2 with various related VP2s has not been studies. Recombinant protein of MPV-VP2 (#MPV21-R-10) is available for control studies.

References: Ball-Goodrich LJ (1994) J. Virol. 68, 6476-6486; Besselsen DG (2000) Compl med. 50, 498-502; Livingston RS (2002) Clin Diagn. Lab. Immunol. 9, 1025-1031; Wan CH (2002) J. Gen. Virol. 83, 2075-2083; Shek WR (1998) Lab Anim. Sci. 48, 294-297

*This product is for In vitro research use only.

Related material available from ADI

MPV21-C	Recombinant (E. coli, his-tag, ~60 Kda) Parvovirus (MPV) Capsid Protein 2 (VP2) control for Western blot
MPV21-MNC	Mouse Anti-Parvovirus (MPV) Capsid Protein 2 (VP2) antibody negative control serum
MPV21-MPC	Mouse Anti-Parvovirus (MPV) Capsid Protein 2 (VP2) antibody positive control serum
MPV21-R-10	Recombinant (E. coli, his-tag, ~60 Kda) Parvovirus (MPV) Capsid Protein 2 (VP2), full length (>95% pure)
MPV21-S	Rabbit Anti-Parvovirus (MPV) Capsid Protein 2 (VP2) antiserum
MPV22-RNC	Rat Anti-Parvovirus (MPV) Capsid Protein 2 (VP2) antibody negative control serum
MPV22-RPC	Rat Anti-Parvovirus (MPV) Capsid Protein 2 (VP2) antibody positive control serum
AE-300500-1	RecombiVirus Mouse Parvovirus (MPV) IgG ELISA Kit, 96 tests
AE-300510-1	RecombiVirus Rat Parvovirus (MPV) IgG ELISA Kit, 96 tests

MPV21-R-10 140925P

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