3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Murine Minute Virus VP2 Protein Purified Liquid Antigen
Gradient purified recombinant viral protein produced *in vitro*

Catalog Number **BR81028**

Synonyms: MMV, MVM, MMV rVP2

Product Description
MMV is a single stranded DNA virus that belongs to the *Parvoviridae* family. While highly contagious, there are typically no clinical signs of infection with MMV. Transmission is possible by the fecal-oral route, fomites, and by contact with infected urine and nasal secretions.[1, 2]

Liquid antigen for MMV virus is from its recombinant VP2 capsid protein expressed in High 5 cells. The proteins are harvested and purified through a gradient during processing.

This product has been tested in ELISA applications. When diluted sera is added to test wells coated with liquid antigen as well as empty control wells, antibodies to MMV rVP2 antigen will only bind in the antigen-coated wells. Labeled conjugate antibody will then allow for the detection of these antibodies through a chromogenic reaction with a substrate.

Reagent
Supplied as frozen liquid.

MMV liquid antigen contains the MMV recombinant VP2 protein in phosphate buffered saline.
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Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

This product is not intended to be used as a diagnostic product.

Storage/Stability
Store in a non-cycling freezer at -60 °C or below. Storage temperature of -80 °C is preferable.
Avoid repeated freezing and thawing, as product degradation may result.

Coated plates can be sealed and frozen at -80±20 °C for up to 6 months.

Procedure
Note: Recommended dilution is provided on the lot specific Certificate of Analysis.

1. Dilute antigen in Coating Buffer at recommended dilution and plate 100 µL per well in odd-numbered columns of the Immunoassay plate.
2. Add nothing to the even-numbered columns of the Immunoassay plate.
3. Cover the plate and incubate overnight at 4°C.
4. Aspirate liquid from all wells and add Blocking Buffer at 100 µL per well.
5. Cover the plate and incubate for 30 minutes at 37°C.
6. Aspirate liquid from all wells.
7. Wash plate three times prior to use with wash buffer.

8. Dilute controls to appropriate working dilution.
9. Also prepare 1:50 dilutions of test samples.
10. Add 100 µL of diluted controls and diluted samples to appropriate wells.
11. Incubate the plate, covered, at 37°C for 1 hour
12. Aspirate liquid from all wells..
13. Wash plate three times with wash buffer.

14. Add 100 µL per well of conjugate antibody diluted according to manufacturer's recommendations.
15. Incubate the plate, covered, at 37°C for 1 hour.
16. Aspirate liquid from all wells.
17. Wash plate three times with wash buffer.

18. Add 100 µL per well of chromogen substrate according to the manufacturer's recommendations.
19. Read the plate after the positive control reaches the desired net OD value.

Note: In order to obtain best results in different techniques and preparations we recommend determining cut-off values through the evaluation of known negative and positive samples.

Recommended Reagents

- Coating Buffer: Carbonate/bicarbonate buffer (0.035 M $NaHCO_3$; 0.016 M Na_2CO_3)
- Plate Type: Nunc Medisorp Flat Bottom 96-well Immunoassay Plate
- Blocking Buffer: 5% skim milk in PBS with 0.2% TWEEN® 20
- Diluent: 5% skim milk in PBS with 0.2% TWEEN 20
- Wash Buffer: 0.15 M NaCl in Reagent Grade/Distilled H_2O + 0.2% TWEEN 20
- Conjugate Antibody: Goat Anti-Rodent (appropriate species) IgG-Peroxidase

References

1. Baker, DG. *Natural Pathogens of Laboratory Animals: Their Effects on Research.* Washington D.C.: ASM Press; 2003. 385 pp
2. *Manual of Microbiologic Monitoring of Laboratory Animals,* 2nd Edition. NIH Publication No. 94-2498; 1994. 226 pp.

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