VLP

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Marburg virus like particles (HA-MARV), MARV001 Isolate (Genebank: OL702894.1)

Catalog #: 0571-PP-003

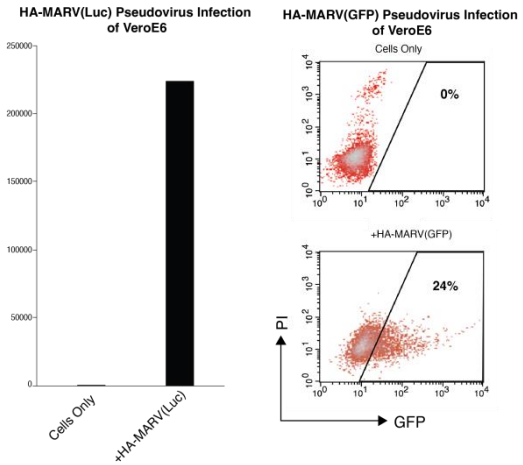
Description:
A novel rapid hybrid alpha-pseudovirus for Marburg (MARV)(HA-MARV) that is available for your initial testing. These pseudoviruses are BSL-2 safe and ready to use for studying viral entry. HA-MARV particles are pseudoviruses assembled from the structural proteins of the filovirus glycoprotein (GP), VP40 matrix protein, and the Nucleoprotein (NP) and package an alphaviral vector for reporter gene expression. The alpha-pseudoviruses are single-cycle viruses with self-replicating RNA for rapid quantification of neutralizing antibodies and entry-inhibiting drugs.

Formulation & Storage: Available upon request
Store at -80°C.

Notes & Usage Guidelines:
Size: 1X concentrated 25 x 200 µL ~100 wells/96 well plate
Reporter: Available with Firefly luciferase, GFP, or RFP

Applications

- Marburg pseudovirus transduction of target cells for viral entry and functional studies
- Rapid Anti-Marburg drug screening
- Rapid Anti-Marburg neutralizing antibody



Hybrid alpha-Pseudovirus Neutralization Assay Protocol:

A monolayer of Vero cells is infected with VLPs or a mixture of VLPs and test sample for approximately 1 hr in a dilution block. Cells are overlayed with 1-2% FBS supplemented media and incubated overnight at 37°C + 5% CO_2. Following overnight incubation, luciferase activity is measured by adding an appropriate substrate like Bright-Glo™ or Luciferase Assay System (Promega). Plates can be read immediately on an instrument such as BioTek Cytation™ or similar. Relative neutralization activity is measured by comparing treated versus untreated wells (or virus only control). In dose response experiments the concentration of TA resulting in 50% neutralization (IC50) is determined.

Repeated freeze/thaw cycles are not recommended as it may affect viral titer and infectivity.

Left: VeroE6 cells were transduced with HA-MARV(Luc) alpha-pseudovirus (with a luciferase reporter). Reporter expression was quantified at 24 hours post-transduction (luciferase assay).

Right: VeroE6 cells were transduced with HA-MARV(GFP) alpha-pseudovirus (with a GFP reporter). Reporter expression was quantified at 24 hours post-transduction (GFP flow cytometry).

Certificate of analysis:
A hardcopy of datasheet is sent along with the products. Please refer to it for detailed information. For older lots, refer to the applicable certificate of analysis that may be requested at services@ibtbioservices.com

Related Products:
IBT provides a wide array of anti-filovirus specific antibodies, recombinant proteins, and other infectious disease reagents. Please see our website, www.ibtbioservices.com for more details.