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VLP

Nipah virus like particles (HA-NiV)

Catalog #: 0570-PP-001

Description:

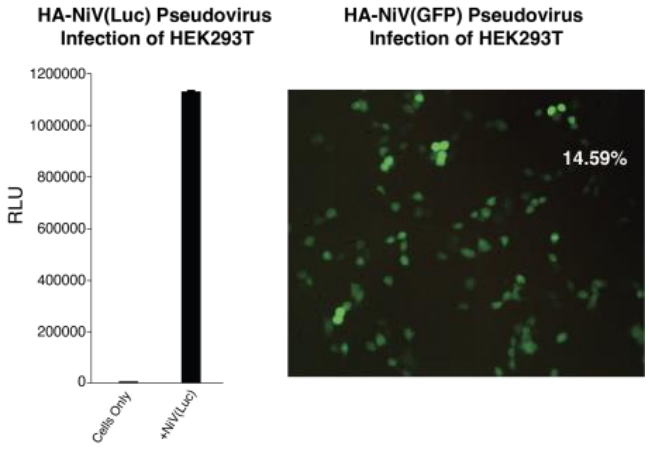
A novel rapid hybrid alpha-pseudovirus for Nipah virus (HA-NiV). HA-NiV particles are pseudoviruses assembled from the structural proteins of the Nipah virus, Fusion (F), Glycoprotein (G), Matrix (M), and Nucleocapsid (N) proteins and package an alphaviral vector for reporter gene expression. The alpha-pseudoviruses are single-cycle viruses with self-replicating RNA for rapid quantification of neutralizing antibodies and entry-inhibiting drugs. These pseudoviruses are BSL-2 safe and ready to use for studying viral entry.

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

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



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: HEK293T cells were transduced with HA-NiV(Luc) pseudovirus (with a luciferase reporter). Reporter expression was quantified at 24hrs post-transduction (luciferase assay).

Right: HEK293T cells were transduced with HA-NiV(GFP) particles. Reporter expression was quantified at 24 hours post-transduction.

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.