

PRODUCT SPOTLIGHT

ZIKA VIRUS RESEARCH MATERIALS

DEPENDABLE SOLUTIONS FOR CRITICAL EMERGING INFECTIOUS DISEASES

ATCC is supporting Zika virus research efforts, such as vaccine efficacy testing and the development of detection assays, with an expanding collection of Zika virus reference materials and solutions, to include:

In vivo and tissue-culture-adapted strains

- Host cell lines and reagents
- Genomic and synthetic nucleic acid preparations
- Choose from among cultures, nucleic acids, and supporting products in the tables that follow, or visit <u>www.atcc.org/ZikaSolutions</u> for the latest updates and additions to the Zika portfolio of reference materials.

Table 1: ATCC Zika virus reference materials

ATCC [®] No.	Product Description	Key Features
<u>VR-84</u> ™	Zika virus strain MR 766	Original 1947 Ugandan isolate cultured in suckling mice
<u>VR-1838</u> ™	Zika virus strain MR 766 (Tissue-culture-adapted from <u>ATCC[®] VR-84</u> ™)	Tissue culture adaptation of strain MR 766 expanded in Vero cells (<u>ATCC®</u> <u>CCL-81</u> ™)
<u>VR-1839</u> ™	Zika virus strain IBH 30656	1968 Nigerian isolate cultured in Vero cells (<u>ATCC® CCL-81</u> ™)
<u>VR-1843</u> ™	Zika virus strain PRVABC59	2015 Puerto Rican isolate grown in Vero C1008 cells (<u>ATCC[®] CRL-1586</u> ™)
<u>VR-1843HK</u> ™	Heat inactivated Zika virus strain PRVABC59	Heat inactivated 2015 Puerto Rican isolate
<u>VR-1844</u> ™	Zika virus strain FLR	2015 Columbian isolate expanded in the <i>Aedes</i> clone C6/36 mosquito cell line (<u>ATCC[®] CRL-1660</u> ™)
<u>VR-1845</u> ™	Zika virus strain P6-740	1966 Malaysian mosquito isolate grown in Vero cells (<u>ATCC[®] CCL-81</u> ™)
<u>VR-1848</u> ™	Zika virus strain R103451	2015 Honduras isolate cultured in Vero cells (<u>ATCC[®] CCL-81</u> ™)
<u>VR-1859</u> ™	Zika virus strain H/PAN/2015/CDC-259359	2015 Panamanian isolate grown in Vero cells (<u>ATCC[®] CCL-81</u> ™)
<u>VR-1860</u> ™	Zika virus strain H/PAN/2015/CDC-259364	2015 Panamanian isolate grown in Vero cells (<u>ATCC[®] CCL-81</u> ™)
<u>VR-1868</u> ™	Zika virus strain R116265	2016 Mexican isolate grown in Vero cells (<u>ATCC[®] CCL-81</u> ™)
<u>VR-1838DQ</u> ™	Quantitative Genomic RNA from Zika virus strain MR 766	RNA extracted from the tissue-culture-adapted strain MR 766 (<u>ATCC®</u> <u>VR-1838</u> ™)
<u>VR-1843DQ</u> ™	Quantitative Genomic RNA from Zika virus strain PRVABC59	RNA extracted from the Puerto Rican strain PRVABC59 (ATCC [®] VR-1843 ^{m})
<u>VR-3252SD</u> ™	Quantitative Synthetic Zika virus RNA	Includes RNA sequences from the membrane glycoprotein precursor M, Envelope, NS1, NS2B, NS3, NS4B, and NS5 regions
<u>VR-1852</u> ™	Monoclonal Anti-Flavivirus Group Antigen, Clone D1-4G2-4-15	B cell hybridoma generated by the fusion of P3X63Ag8 myeloma cells with immunized mouse splenocytes.
<u>VR-1864</u> ™	Monoclonal Anti-Zika virus envelope (E) protein, Clone ZV-2	Mouse monoclonal antibody purified from clone ZV-2 hybridoma supernatant by protein G affinity chromatography
<u>VR-1866</u> [™]	Monoclonal Anti-Zika virus envelope (E) protein, Clone ZV-16	Mouse monoclonal antibody purified from ascites fluid by protein G affinity chromatography

Zika virus is a vector-borne pathogen that is spread among humans primarily through the bite of infected Aedes mosquitoes. With an outbreak occurring throughout regions in Central and South America, preventing the spread of this disease has become a top priority. ATCC strains and nucleic acid preparations serve as critical controls in research and validation, and are authenticated and backed by polyphasic testing – ensuring the consistency and reliability you have come to trust from ATCC.

Table 2: Supporting products for Zika virus propagation

ATCC [®] No.	Product Description
<u>CCL-81</u> TM	Vero Cells
<u>CRL-1586</u> ™	Vero C1008
<u>CRL-1660</u> ™	Aedes albopictus clone C6/36 cells
<u>30-2003</u> [™]	Eagle's Minimum Essential Medium (EMEM)
<u>30-2020</u> [™]	Fetal Bovine Serum (FBS)
<u>60-2450</u> ™	Molecular Grade Water

NEW HUMAN NEURAL PROGENITOR CELLS

ATCC has introduced a complete system of human neural progenitor cells (NPCs) capable of astrocyte, oligodendrocyte, and neuronal differentiation, useful for in vitro pathogen-host interaction studies on Zika virus, including:

- Neural Progenitor Cells Derived from ATCC-BY S012 (<u>ATCC[®] ACS-5004</u>[™])
- Neural Progenitor Cells Derived from ATCC-BXS0117 (<u>ATCC[®] ACS-5003</u>[™])
- Neural Progenitor Cells Derived from XCL-1 DCXp-GFP (<u>ATCC[®] ACS-5005</u>[™])
- Neural Progenitor Cells Derived from XCL-1 MAP2p-Nanoluc-Halotag (<u>ATCC[®] ACS-5007</u>[™])
- Neural Progenitor Cells Derived from XCL-1 GFAPp-Nanoluc-Halotag (<u>ATCC[®] ACS-5006</u>[™])

Utilizing NPCs eliminates weeks of embryoid body formation, allowing for more controlled expansion and quicker differentiation to neuronal and glial cells. Further, you can ensure successful expansion and differentiation of your NPCs with a complete selection of high quality ATCC culture media and growth kits, basement membrane gel matrix ($\underline{ATCC}^{\otimes} \underline{ACS-3035}^{m}$), and dopaminergic differentiation kit ($\underline{ATCC}^{\otimes} \underline{ACS-3004}^{m}$). Learn more at www.atcc.org/neuro.

VECTOR-BORNE DISEASE RESEARCH MATERIALS

ATCC offers a wide range of microorganisms and nucleic acids that support research on prevalent vector-borne diseases, including:

- Anaplasmosis
- Babesiosis
- Chikungunya
- Dengue
- Ehrlichiosis
- Leishmaniasis

- Lyme disease
- Malaria
- Rocky Mountain spotted fever
- Trypanosomiasis
- West Nile fever
- Zika

These products are ideal for the development and validation of novel diagnostic assays and therapeutic treatments. Visit us online at **www.atcc.org/vectorborne** to learn more about ATCC products that support reliable vector-borne disease research.



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