Creative Diagnostics Announces Availability of Chikungunya Virus Antigens for Vaccine and Antiviral Research

Creative Diagnostics has announced a comprehensive suite of Chikungunya Virus Antigens for scientists working on infectious diseases.

NEW YORK, NY, UNITED STATES, August 18, 2025 /EINPresswire.com/ -- Creative Diagnostics, a leading manufacturer and supplier of antibodies, antigens and assay kits, has announced the expansion of its product line to include a comprehensive suite of quality Chikungunya Virus Antigens for scientists working on infectious diseases. These specialized products will support global efforts in the development of new diagnostics, vaccines, and antiviral therapies against the Chikungunya virus.

The Chikungunya virus (CHIKV) belongs to the Alphavirus genus and the Togaviridae family. First isolated in Tanzania in 1953, CHIKV is an RNA virus with a positive-sense, single-stranded RNA genome of approximately 11,600 nucleotides. CHIKV is the most virulent alphavirus transmitted to humans by the Aedes aegypti mosquito during blood feeding, causing chikungunya fever. The most common symptoms of CHIKV infection are fever and joint pain. Other symptoms may include headache, muscle pain, joint swelling, or rash. Phylogenetic analysis has identified three distinct CHIKV lineages corresponding to their geographical origins: the West African lineage, the East-Central-Southern African (ECSA) lineage, and the Asian lineage. In the United States, CHIKV is classified as a Category B priority pathogen, and related work requires Biosafety Level 3 (BSL-3) containment measures.

CHIKV encodes four nonstructural proteins (nsP1-nsP4) and three structural proteins. The structural proteins include the capsid protein and two envelope glycoproteins: E1 and E2, which form heterodimeric spikes on the surface of the viral particle. E2 binds to cellular receptors and enters host cells via receptor-mediated endocytosis. E1 contains a fusion peptide that separates from E2 when exposed to the acidic environment of eukaryotic endosomes. This triggers membrane fusion and releases the nucleocapsid into the host cytoplasm, thereby promoting infection. The nucleocapsid then disassembles in the cytoplasm, releasing the viral genomic RNA. Mature viral particles contain 240 E2/E1 heterodimeric spikes that bud from the surface of infected cells and are secreted into the extracellular space via exocytosis to infect other cells.

Currently, there are no specific antiviral drugs or vaccines targeting CHIKV. Patient management relies solely on symptomatic treatment, including antalgics (paracetamol) and steroidal and

nonsteroidal anti-inflammatory drugs. Developing novel antiviral strategies depends on deeply understanding the interaction between CHIKV and host cells, as well as clarifying the molecular mechanisms and cellular pathways that enable the virus to become pathogenic.

Creative Diagnostics now offers a variety of Chikungunya virus antigens for vaccine development, such as Recombinant Chikungunya E1/E2 Antigens, Inactivated CHIKV Antigens and DAGA-292 CHIKV Capsid proteins [His]. In addition to antigens, the company also provides other related solutions, such as highly specific CHIKV antibodies, to help scientists combat this widespread disease.

Creative Diagnostics is committed to providing the scientific community with the essential tools to accelerate research into infectious diseases like Chikungunya. This new line of Chikungunya Virus Antigens will empower researchers to better understand the virus and advance the development of much-needed vaccines and therapeutics. For more information about these new products and Creative Diagnostics' full range of research solutions, please visit https://www.creative-diagnostics.com/tag-chikungunya-virus-antigens-81.htm.

About Creative Diagnostics

Creative Diagnostics is a leading manufacturer and supplier of antibodies, viral antigens, innovative diagnostic components, and critical assay reagents. In addition to providing contract R&D and biologic manufacturing services for diagnostic manufacturers along with GMP biologics manufacturing for the biopharmaceutical market, the company aims to continue to act as a trusted source for all researchers' assay development and manufacturing needs.

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