

## Antibody Datasheet / Certificate of Analysis

<b>Product Name:</b>	Mouse anti-Chikungunya virus Capsid protein
<b>Clone number:</b>	CA980
<b>Isotype:</b>	Mouse IgG1
<b>Product code:</b>	AbCHIKV-CA980-100
<b>Batch Number:</b>	TBC
<b>Immunogen:</b>	Native Chikungunya virus
<b>Amount:</b>	100ug
<b>Concentration:</b>	1mg/ml
<b>Buffer:</b>	Phosphate Buffered Saline pH7.4
<b>Preservative:</b>	0.09% w/v sodium azide.
<b>Purification:</b>	Antibody was purified by affinity chromatography on Protein A
<b>Specificity:</b>	This antibody is specific for the Capsid protein of Chikungunya virus. It demonstrates negligible cross-reactivity with other members of the alphavirus family, including Western Eastern and Venezuelan Encephalitis viruses. There is no cross-reactivity to Zika, Dengue or other flavivirus antigens.

**Applications:** ELISA, Immunofluorescence

**Antigen background:** Chikungunya virus is the aetiological agent of chikungunya fever. CHIKV belongs to the *Alphavirus* genus, and is an enveloped, single-stranded positive-sense RNA virus ( [Strauss & Strauss, 1994](#) ). The alphavirus genome encodes four non-structural proteins (nsP1 to nsP4) and five structural proteins (capsid, E3, E2, 6K and E1).

CHIKV is transmitted to humans by *Aedes* mosquitoes, and disease is characterized by a rapid onset of fever, myalgia and often a rash (usually maculopapular), with chronic disease characterized by episodic, and often debilitating, polyarthralgia/polyarthrits. ( [Suhrbier et al., 2012](#) ). The largest epidemic of CHIKV disease ever reported began in 2004 and has since been responsible for up to 6.5 million human cases, primarily in Africa and Asia, with imported cases reported in over 40 countries. CHIKV infection is symptomatically similar to infection with Zika virus and Dengue virus, and differential diagnosis using immunoassay based testing is important in patient management.

The alphavirus capsid protein (CP) is a multifunctional protein that has been shown to act as a serine protease for self-cleavage, binds viral genomic RNA and other CP molecules during nucleocapsid formation, and interact with viral spike proteins during virion formation and egress ( [Choi et al., 1991](#) ). The CP of CHIKV forms two major domains. The N-terminal domain is implicated in non-specific RNA binding, while the C-terminal domain harbours the globular protease and the binding site for the spike protein ( [Hong et al., 2006](#) ).

**Storage:** Store at +4<sup>0</sup>C for up to three months, or at -20<sup>0</sup>C for longer periods  
The antibody is shipped at ambient temperature.  
Avoid repeated freeze/thaw cycles.

### Direct ELISA data

An ELISA plate was coated with 100ng of antigen per well, then blocked with 2% BSA. Primary antibody was used at a concentration of 1ug/ml, and the detection antibody used was Goat anti-mouse IgG:HRP (Bio-Rad, 1:2000). The substrate used was TMB (KPL).

CA980 ELISA - antigen binding

