



Alphavirus is a genus of positive-sense, single-stranded RNA viruses spread mainly via mosquitoes, causing symptoms ranging from febrile conditions to severe arthritis and encephalitis. Accurate diagnosis is complicated by clinical presentations similar to dengue and malaria, highlighting the need for effective and rapid diagnostics. Complex interactions involving environmental factors, vector competence, and host susceptibility contribute to the emergence and re-emergence of these viruses, leading to recent outbreaks across Africa, Asia, Australia, Europe, and America (Wesula Olivia et al., 2015).



**Aedes spp.**  
**Chikungunya virus, Mayaro virus**



**Anopheles spp.**  
**O'nyong'nyong viruses**

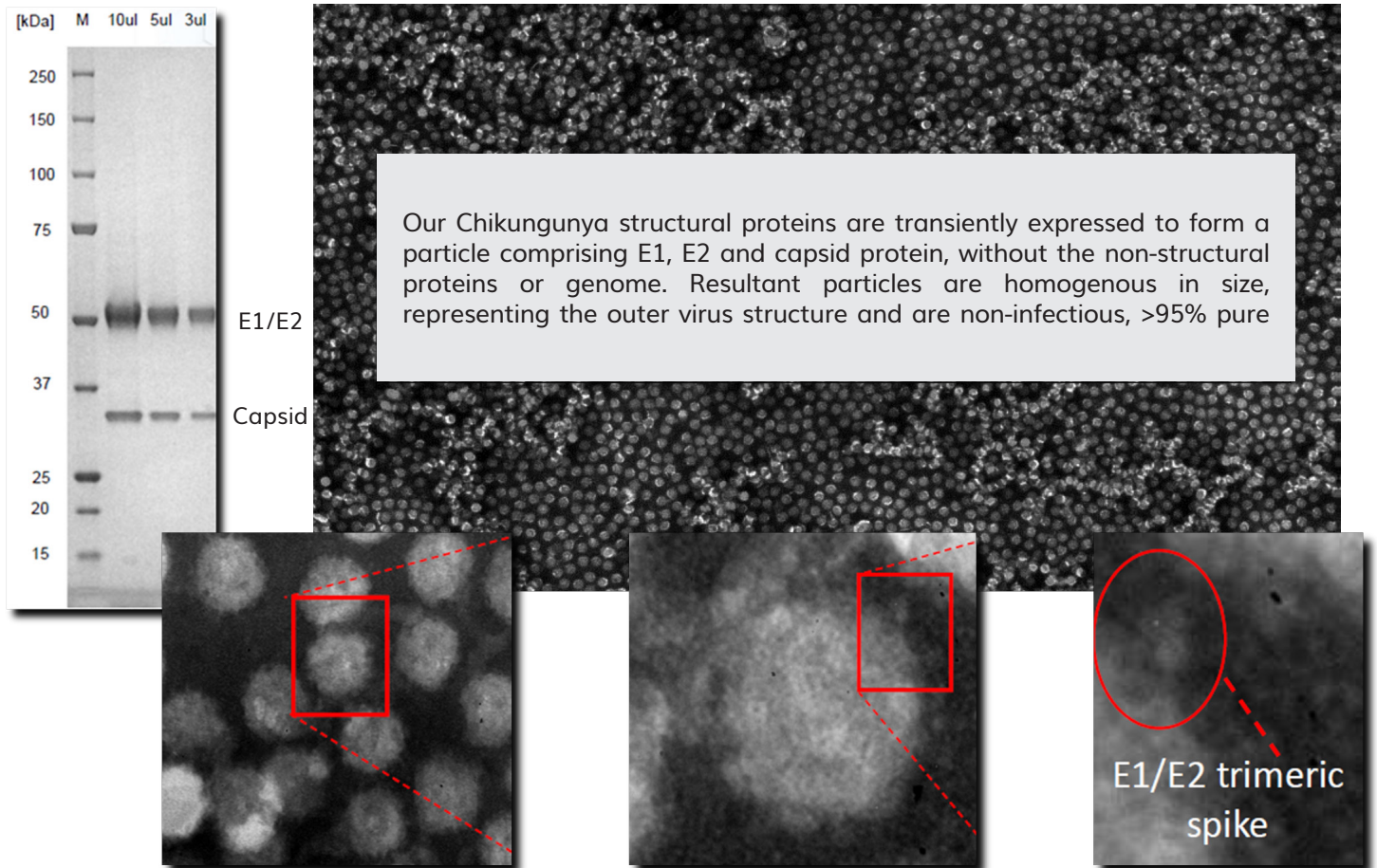


**Culex and Aedes spp.**  
**Ross River virus**

### Our products

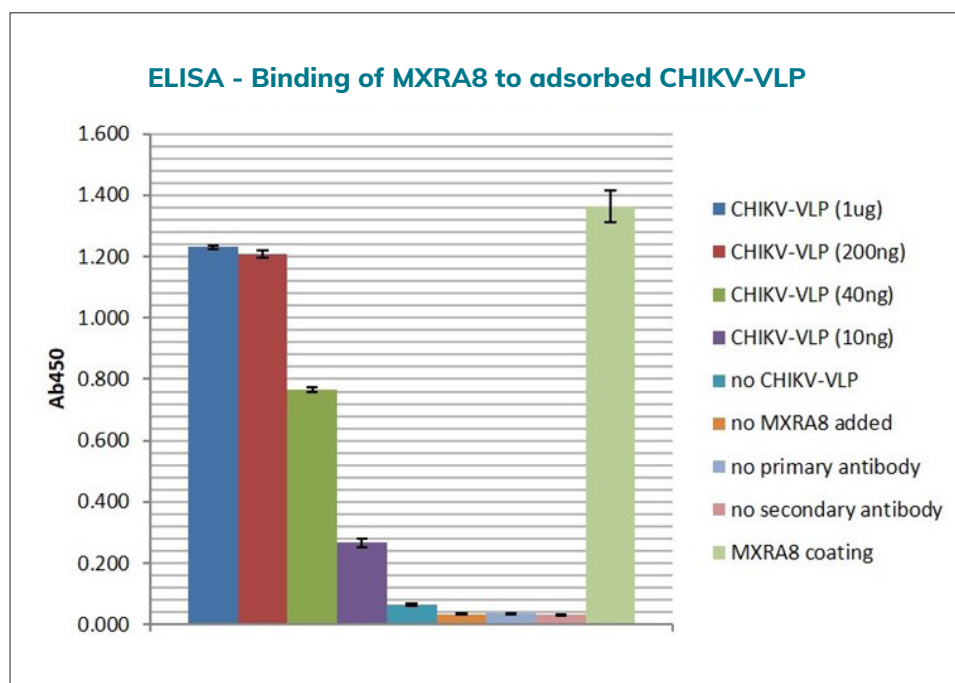
Alphavirus	viral surface proteins	Virus-like- particles (VLPs)	Viral lysate	Selection of antibodies
Chikungunya Virus	E1 and E2 produced in HEK293 or Insects cells	+	+	anti-VLP, E2 and capsid proteins
Mayaro Virus	E2; His, Mouse or Human Fc-Tag	+	-	anti-E1, E2 proteins
Ross River Virus	-	preparation containing VLPs and aggregates thereof, detergent treated	-	anti-VLP, E1 , E2 proteins
O'nyong'nyong Virus		Can be produced on request		anti -VLP

Our products are used by the most influential researchers in the field of infectious diseases, have a look at our [References Page](#) or [contact us](#) for the product recommendation tailored for your project!



## Virus receptors

The Native Antigen Company also offers mammalian expressed human MXRA8 (His-tag or mouse Fc-tag) viral receptors. As shown below these receptors bind to our Chikungunya virus-like particles.



**Figure 1.**

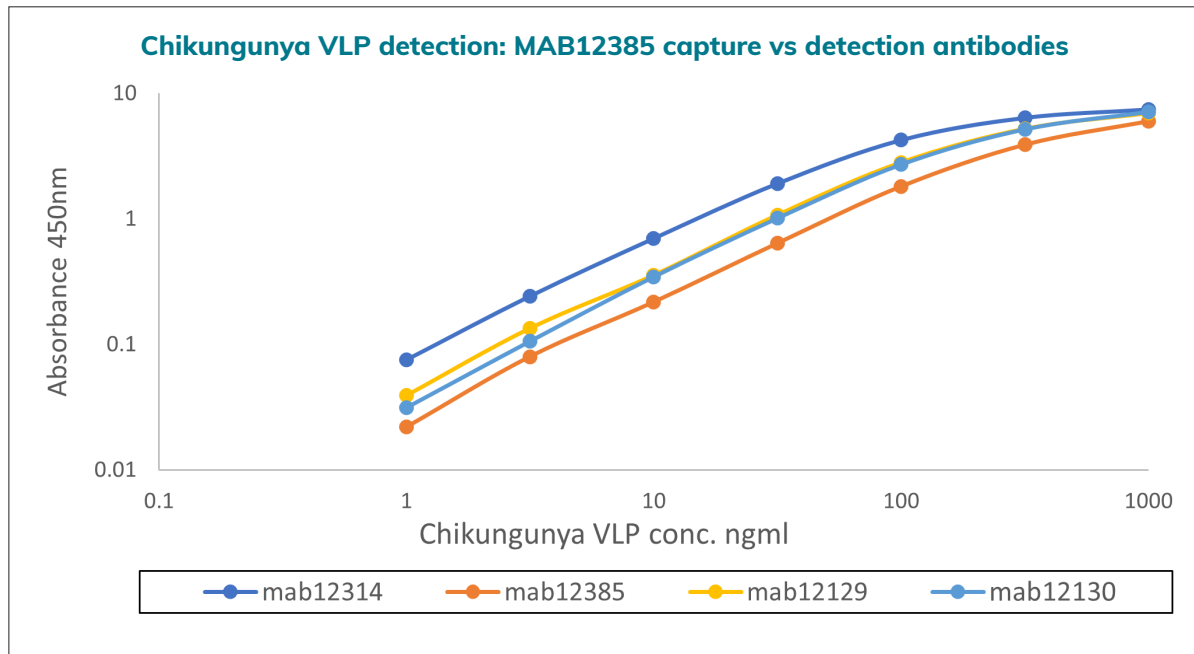
Various amounts of The Native Antigen Company's CHIKV-VLP coated onto a Maxisorp ELISA plate, then blocked with 2% BSA. After blocking the plate was incubated with 1ug/well of MXRA8.

The plate was then probed for MXRA8 bound to CHIKV-VLP with a mouse anti-His-tag antibody as primary antibody and anti-mouse-IgG-HRP as secondary antibody.

## Antibody matched pairs

Our experienced Assay Development Team prepared over 300 matched antibody pairs perfect for ELISA and Lateral Flow assays.

Contact us for more details: [nac.contact@lgcgroup.com](mailto:nac.contact@lgcgroup.com)



**Figure 2.** Example of the matched pair data produced by our assay experts.

## Custom solutions

If you have a unique need in the space of viral antigens or antibodies, we can offer our experience and expertise to collaborate in a bespoke development project. Our specialized team can produce native and recombinant antigens and antibodies, and viral lysates, and downstream processing. We operate to BSL-2 standards and offer multiple validated options for inactivating viruses, as well as multiple conjugation options.

Email: [nac.contact@lgcgroup.com](mailto:nac.contact@lgcgroup.com)

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## References

- Wesula Olivia, L. et al. (2015) 'Global emergence of alphaviruses that cause arthritis in humans', *Infection Ecology & Epidemiology*, 5(1), p. 29853. doi:10.3402/iee.v5.29853.