

The Native Antigen Company offers top-tier reagents for infectious disease vaccine R&D and diagnostics. Our team, equipped with extensive product development expertise, utilizes **mammalian, insect and bacterial** expression systems to deliver premium viral and bacterial antigens and antibodies.

### Antigens

We pride ourselves in choosing the correct expression system for your antigen. Our HEK293-derived **VirtuE™ expression system** ensures authentic post-translational protein modifications such as glycosylation and disulfide bridge formation for secreted, cell-surface or viral envelope proteins whereas our *E. coli* expression system can enable high yields of bacterial, intracellular or intravirion proteins such as viral nucleoproteins.

We have extensive experience in producing proteins for both **rare diseases** like Mayaro, Nipah, and Marburg virus and more well-known diseases such as HIV and influenza, with the production of **stabilized HIV-1 and HIV-2 gp140 antigens** enabling a new generation of diagnostic assays and structural studies. In our commitment to **pandemic preparedness**, we provide a comprehensive library of influenza Haemagglutinin (HA) and Neuraminidase (NA) antigens, following WHO-recommended vaccine strains.

### Toxins and Toxoids

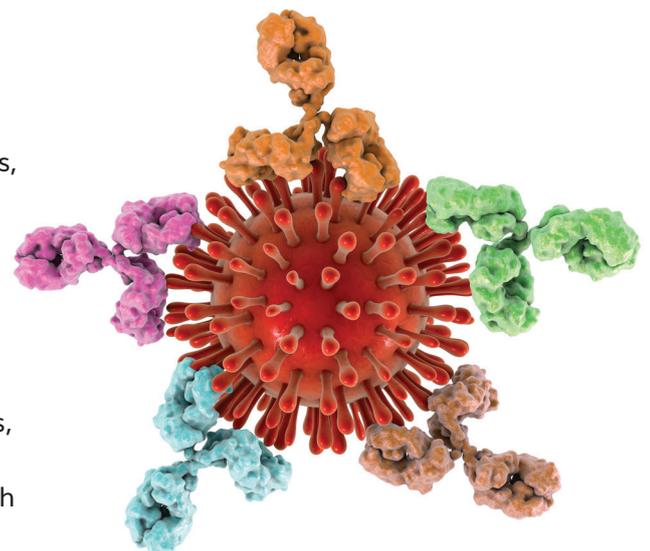
We offer a range of highly purified bacterial toxins, all tested to ensure bioactivity. The reagents are suitable for use in cellular assays, as antigens for antibody production, and for IVD assays. Our bestselling products include:

- *Clostridium difficile* Toxins and Toxoids
- Diphtheria, Pertussis and Tetanus Toxins

### Antibodies

We offer services such as raising of mono- and polyclonal antibodies, chimerization and recombinant expression of antibodies, hybridoma banking, antibody conjugation, testing and assay development. Our antibodies include:

- Mono- and polyreactive antibodies against flaviviruses
- Human-mouse chimeric antibodies against Zika, Dengue and Rubella virus, in both IgG and IgM formats
- Secondary antibodies against 18 animal species and isotypes, including IgG, IgM, IgA and IgE classes.
- Over 300 evaluated matched pair antibody combinations with quality scores for a variety of infectious disease areas.



### Virus-like particles

VLPs consist of structural proteins specific to the virus in question, presented as structurally accurate synthetic virions. While highly immunogenic, they are non-infectious, lacking the core genetic material of the virus. VLPs more effectively activate critical aspects of the immune response to achieve potent immune stimulation, being more advantageous for vaccine development.

### The Native Antigen Company offers several high-purity VLPs:

- Flavivirus VLP's
- Chikungunya, Mayaro and O'nyong'nyong VLP's
- Norovirus VLP's
- **NEW** Rubella VLP's

Our Rubella VLPs not only provide higher safety of handling and great lot-to-lot consistency, but also compared with Seracare "Accuset" control set show strong IgG correlation, proving our product could be **an ideal alternative to culture-produced Rubella lysate.**

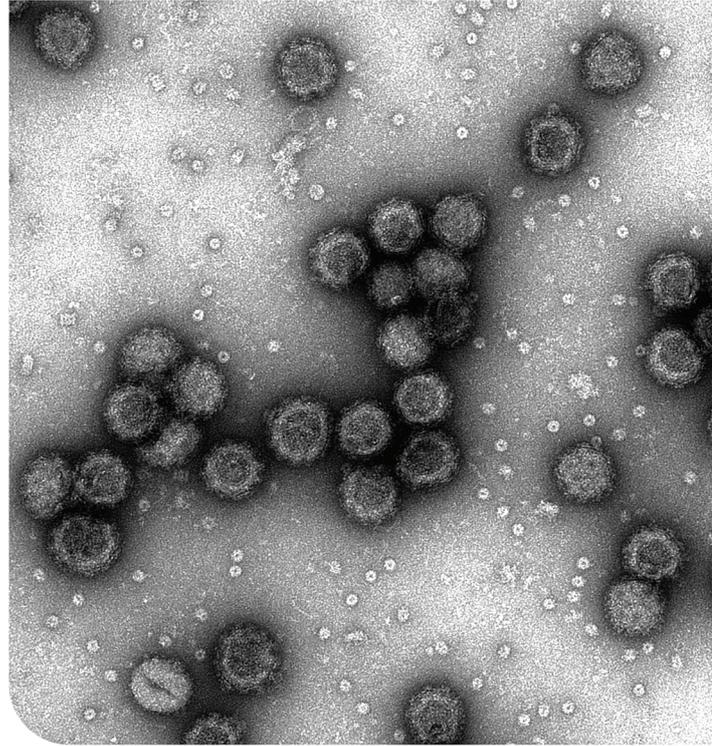


Figure 1. Mayaro Virus-Like Particles comprised of recombinant capsid comprised of recombinant capsid and E1 / E2

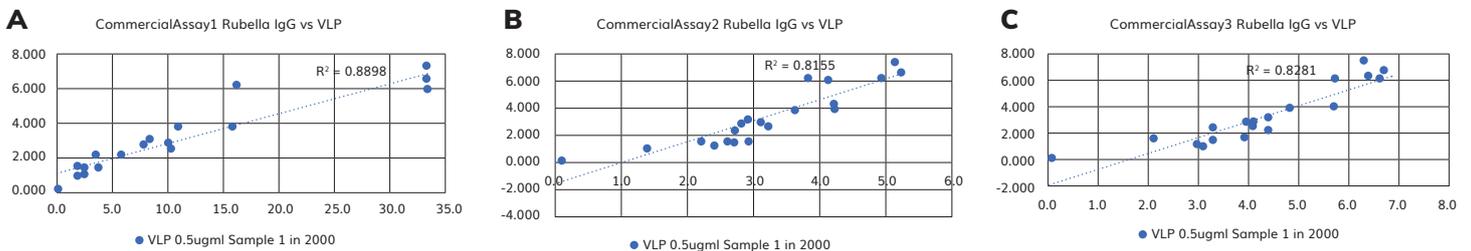


Figure 2. Graphs a to c presents The Native Antigen Company Rubella VLP product correlation with the Seracare "Accuset" rubella control set when tested with three popular commercially available assays.

### Quality of our products have been recognised by leaders in the infectious diseases R&D:

"We have been working with TNAC for over 6 years and across more than 20 projects, achieving a consistently high antibody titre using the antigenic material (e.g. recombinant proteins, fusion proteins, VLP's) provided by TNAC. We are proud partners to TNAC with regards antibody provision and look forward to a continued successful relationship based on the antigens provided by TNAC and the antibody production services offered by BioServUK".

Dr. Andy Wright, General Manager, BioServUK

