



**Yaohabio**  
耀海生物



# YAOHAI BIO-PHARMA

*From Concept to Vaccines  
One-stop CRDMO*

## Services

- DNA Vaccines
- RNA Vaccines
- Plasmid Vaccines
- Subunit Vaccines
- Protein/Peptide-based Vaccines
- Polysaccharides Vaccines (Bacterial Capsule)
- Viral Vector Vaccines
- VLP Vaccines
- Live-attenuated Vaccines
- Biologic Vaccine Adjuvants
- Conjugate Vaccines
- Toxoid Vaccines
- Heterologous Vaccines

## Advantages

cGMP Production Platform 7500+L Scale

The Largest GMP-level Plasmid Supplier in China

Explosion-proof Facilities / High Potency Manufacturing Suite

Bio-Safety Level2 (BSL-2) Lab

Allowing Customer PM/Technical Personnel to Be Stationed On-Site

BD@yaohaibio.cn

[www.yaohai-bio.com.cn/downloadfile](http://www.yaohai-bio.com.cn/downloadfile)

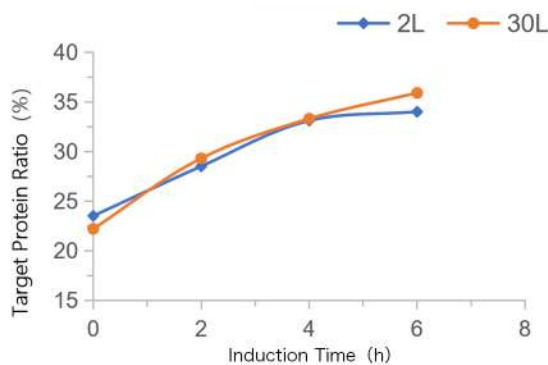


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The First and Largest CRDMO in Microbial Expression System in Greater China

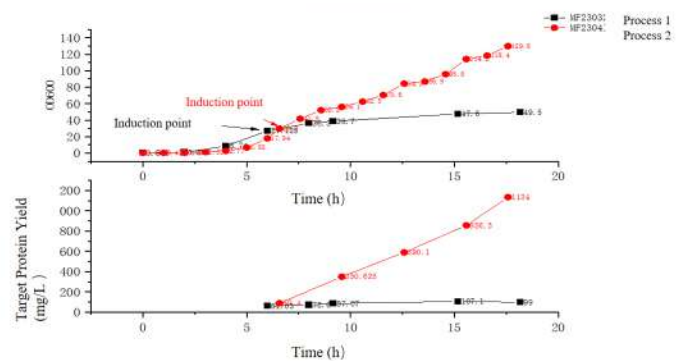
## Case 1: Recombinant VLP Vaccine

Vaccine Type	Development Stage	Deliverables
VLP Vaccine (Encapsulating Nucleic Acid)	pre IND	<ul style="list-style-type: none"> <li>30L and 200L</li> <li>Target protein &gt;35%</li> <li>Purity &gt; 98%</li> </ul>



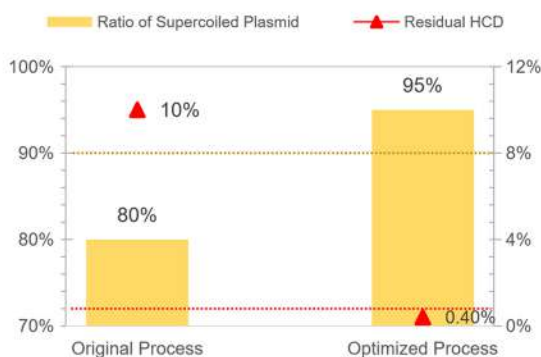
## Case 2: Recombinant CRM197 Carrier Protein Vaccine

Vaccine Type	Development Stage	Deliverables
Recombinant CRM197 Protein Vaccine ( <i>Escherichia coli</i> )	Preclinical	<ul style="list-style-type: none"> <li>BioPharma designed the process route</li> <li>Target protein yield : 1134 mg/L</li> <li>Purification process development in progress</li> </ul>



## Case 3: Prophylactic DNA Vaccine

Vaccine Type	Development Stage	Deliverables
Prophylactic DNA Vaccine	pre IND	<ul style="list-style-type: none"> <li>The proportion of superhelix was &gt; 95%</li> <li>The HCD residue was &lt; 1%</li> <li>HCP and endotoxin residues met the quality standards</li> </ul>



## Case 4: VLP Conjugate Vaccine

Vaccine Type	Development Stage	Deliverables
Therapeutic Vaccine with VLP as Carrier	pre IND	<ul style="list-style-type: none"> <li>Provision of stable formulations for raw materials and drug substances (including adjuvants), along with a scalable process for drug substance production.</li> <li>Coupling production is in progress</li> </ul>

