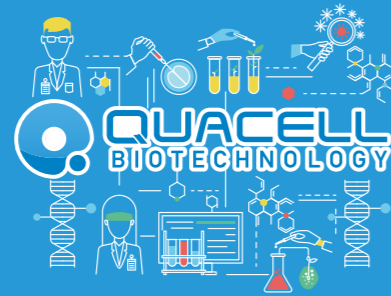




Technology Platform Of Cell Line



WEB

<http://www.quacell.com/>

Quacell Biotechnology, Co., Ltd.,

5F, Building 3, No. 6, Shennong Road,

Torch Development Zone, Zhongshan, China

info@quacell.com

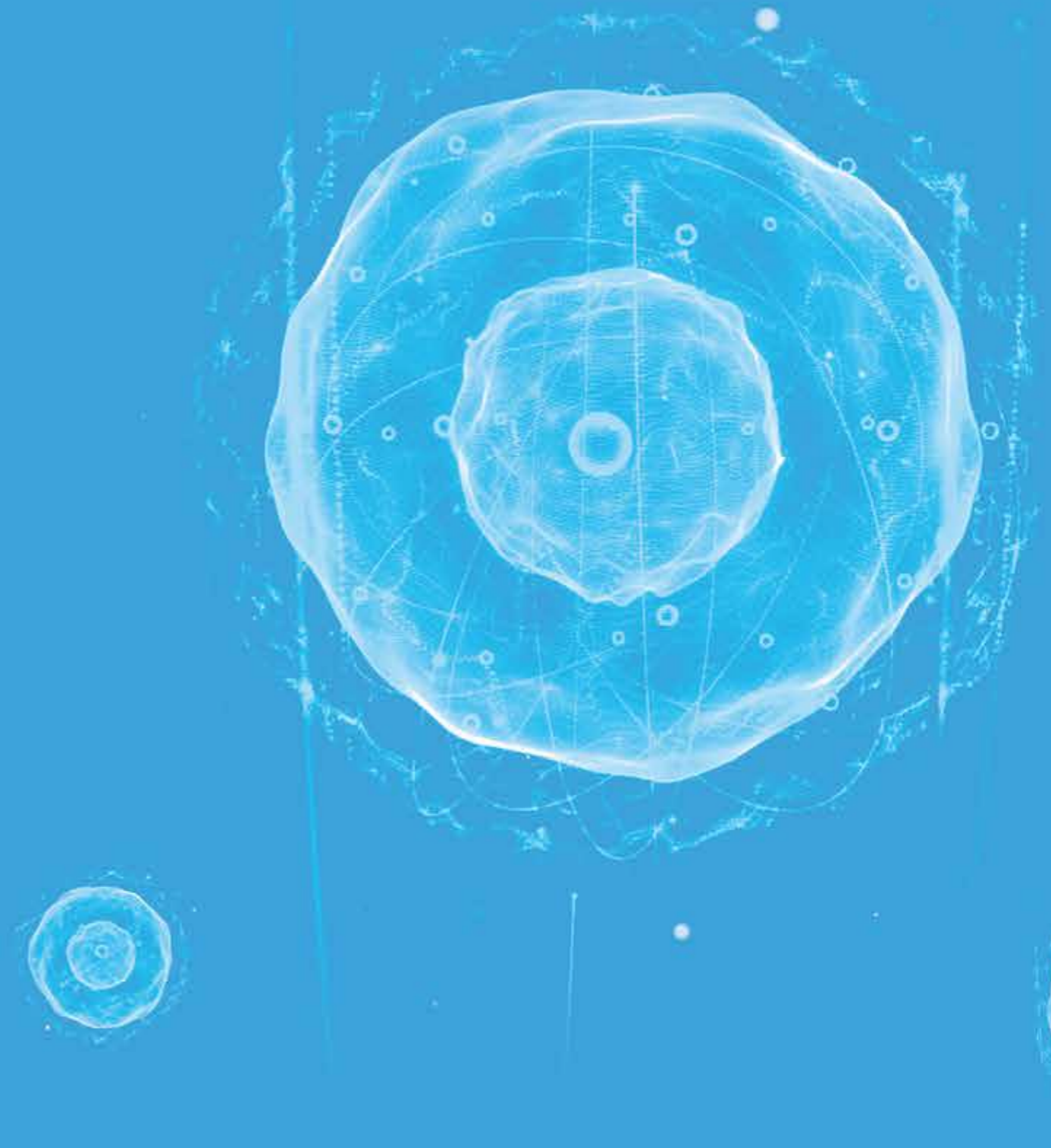
400-902-0506

QuaCell Biotechnology, Co., Ltd.

Your Ultimate Biopharmaceutical Partner

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ABOUT US



Quacell Biotechnology, Co., Ltd., headquartered in Zhongshan City, Guangdong-Hong Kong-Macao Greater Bay Area, is a rapidly growing global Biotechnology enterprise. Adhering to the requirements of ISO GMP regulations, Quacell focuses on the research and manufacture of cell medium, providing key raw materials and R&D services to the global biopharmaceutical and gene therapy companies through the innovative technologies and excellent product R & D capabilities. We promote the R & D of biopharmaceutical and biotechnology companies by providing the highest quality products and services for clients. Moreover, we develop treatments for human diseases, jointly promote the innovative development of the global biopharmaceutical industry, and improve the quality of human life.



GUANGZHOU R&D CENTER

The R&D center was officially launched in February 2022.

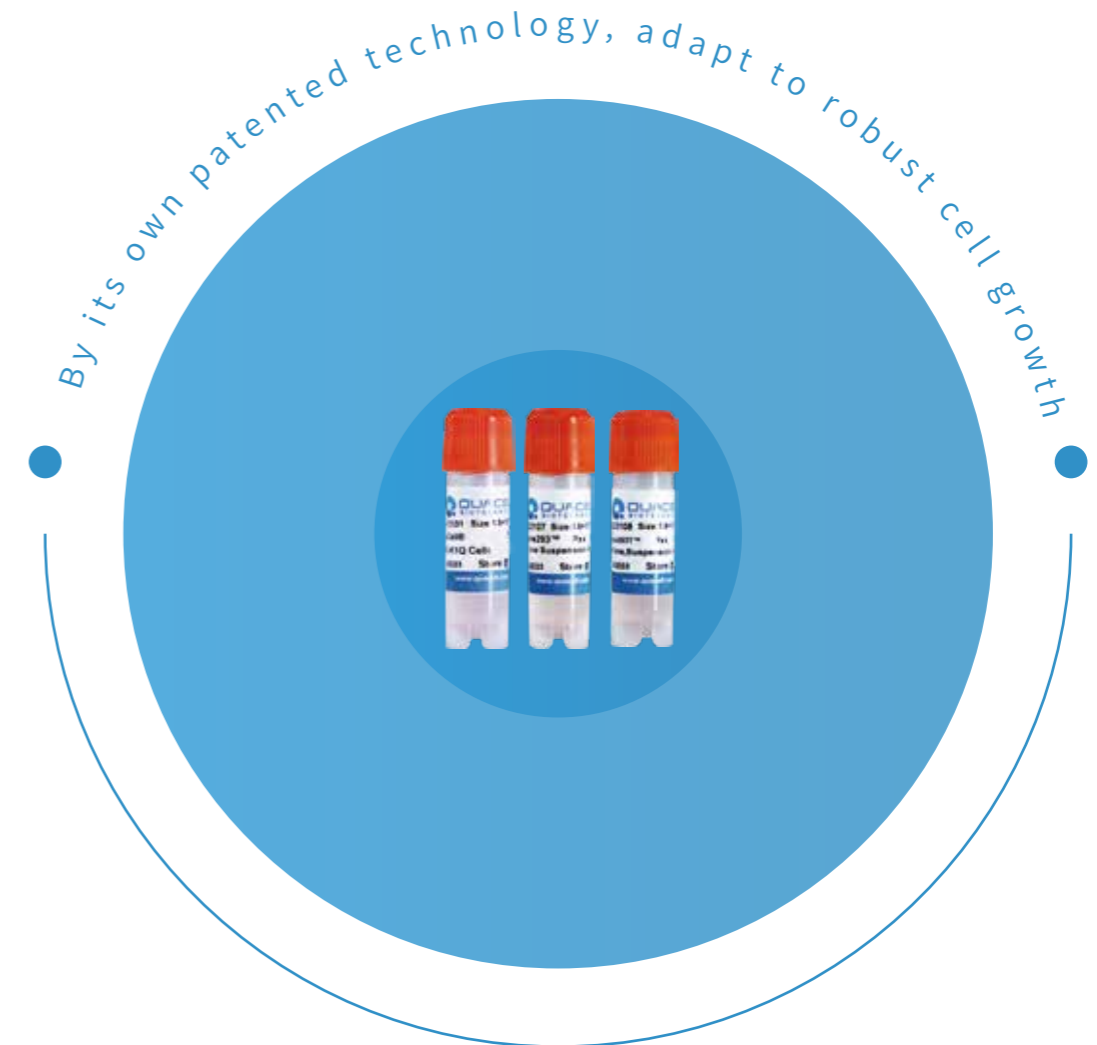
SUZHOU CULTURE MEDIUM PRODUCTION AND RESEARCH BASE

SUZHOU culture medium production and research base was officially put into operation in August 2022.



CELL LINE

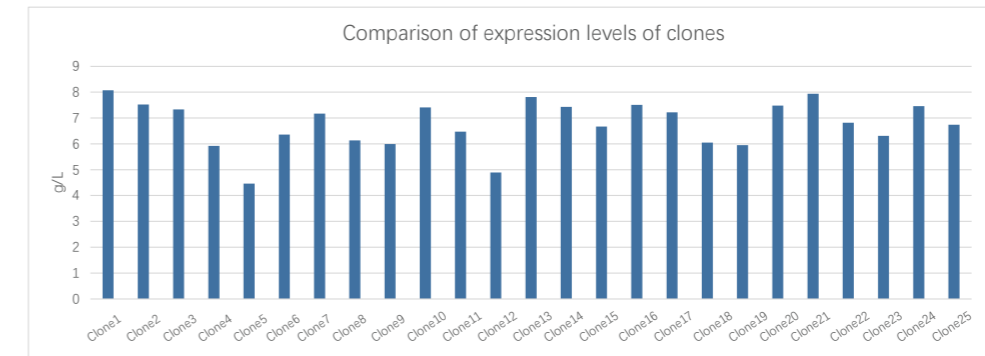
- ① QuaCell® CHO-K1Q Cell line ② WayneLVPro™ HEK293 Cell line ③ WayneLVPro™ HEK293T Cell line



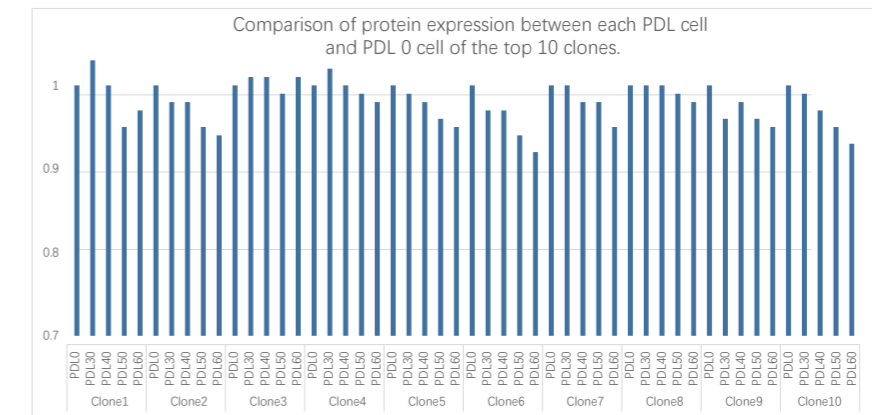
QuaCell® CHO-K1Q Cell line

The heroine of platform

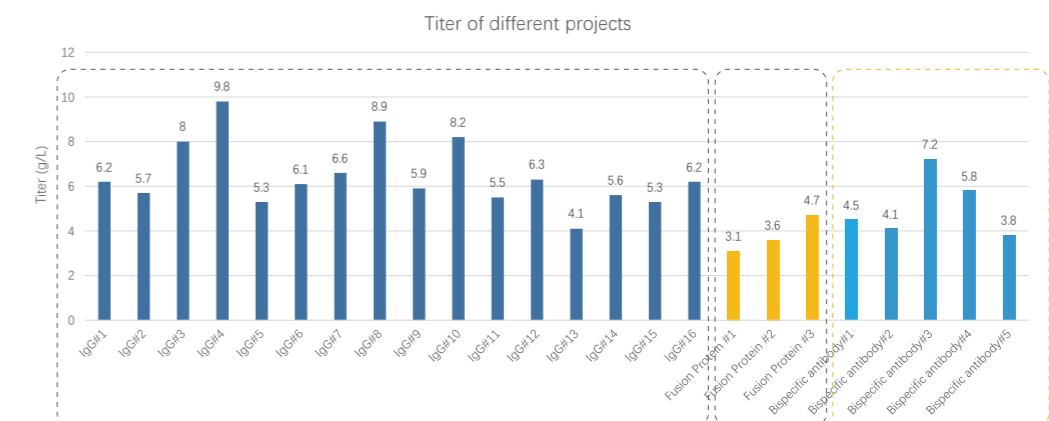
- High Lac, NH4 & Osmo resistance
- Platform process, providing complete solutions to speed up R&D process
- High titer, the average IgG is more than 4.0 g/L, and the highest is 9.8 g/L
- Clear source, providing complete IND&BLA document support
- FTO, flexible global commercial license



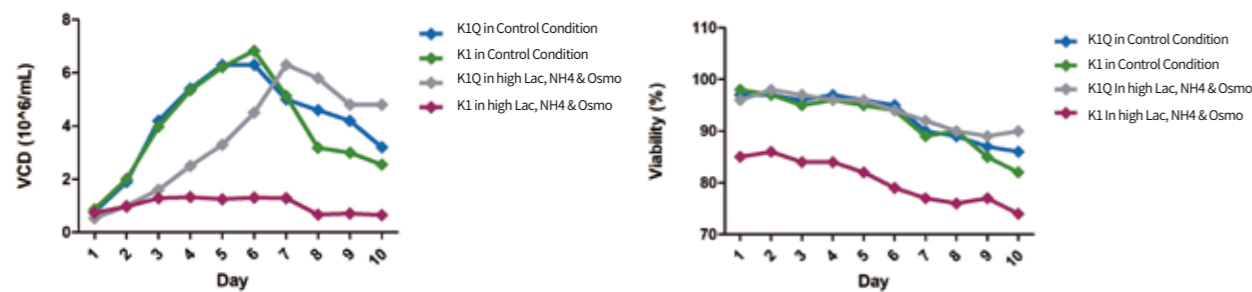
The average titer was over 6.7g/L, and the highest titer reached 8.1g/L.



The stability test of TOP 10 clones showed that the titer of PDL cells fluctuated within 30%. TOP 10 clones is relatively stable and can be used for 200 L or 2000 L scale-up production.



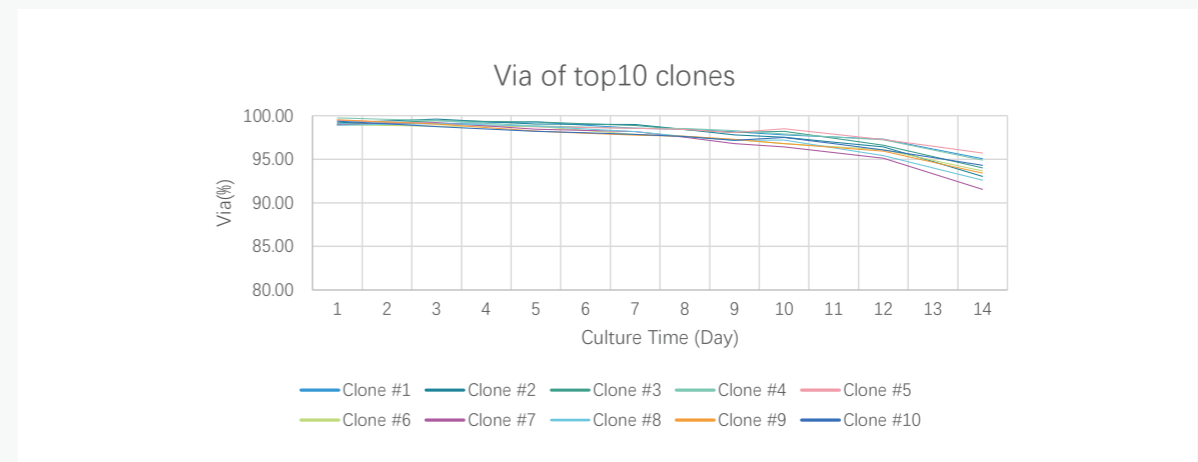
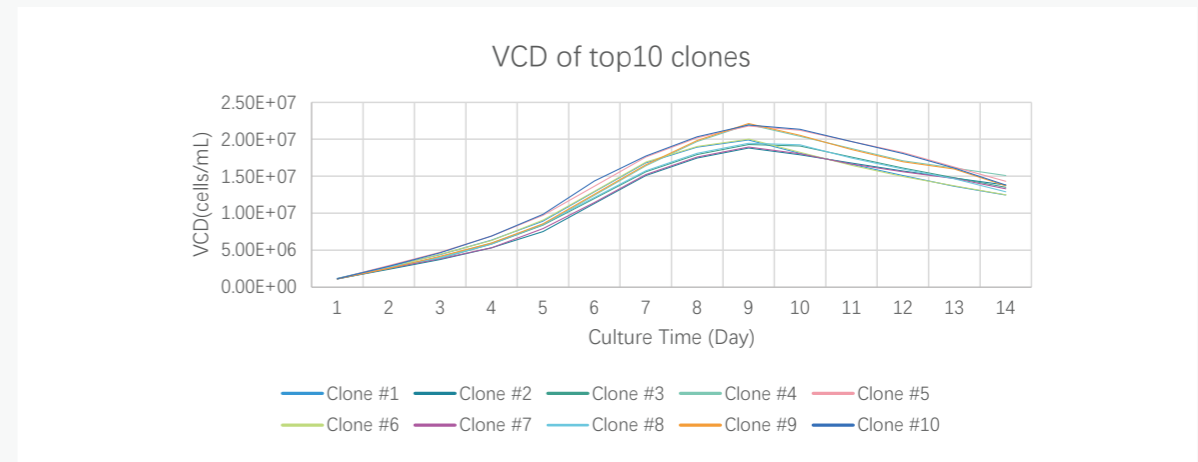
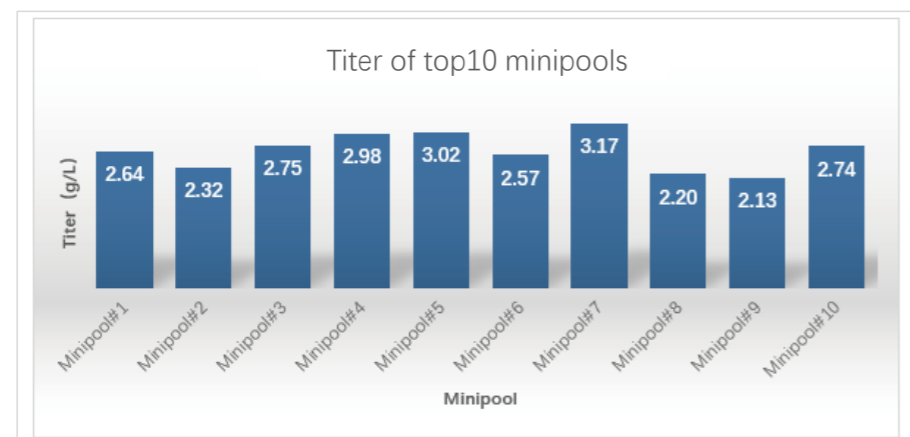
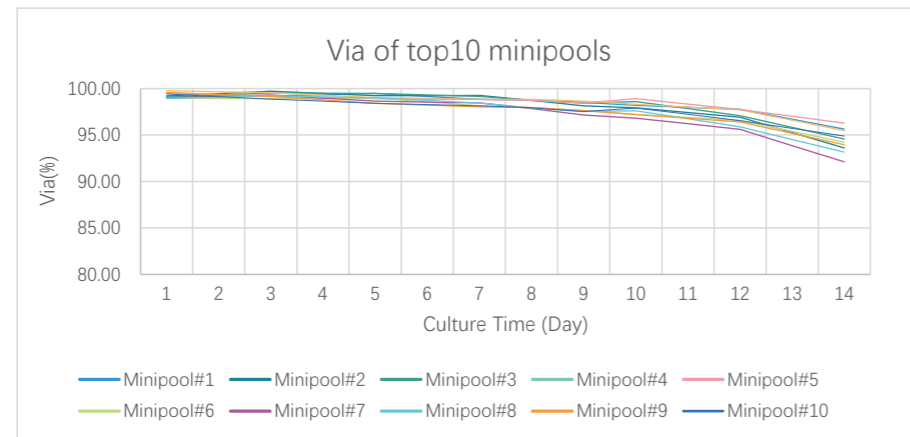
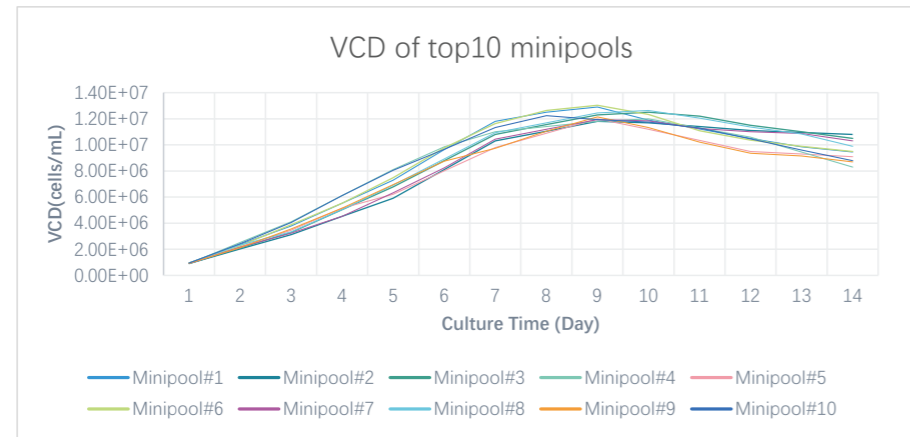
QuaCell® CHO-K1Q cells are used for different project construction, and the titer of IgG is more than 9g/L, fusion protein 4.7g/L, and bispecific antibody 7.2g/L, with rich data, nearly 200+ projects.



In high Lac, NH4 & Osmo, the peak VCD of QUACELL CHO-K1Q cells was normal. In Control Condition, Cell density of QUACELL CHO-K1Q decreases slowly than CHO-K1.

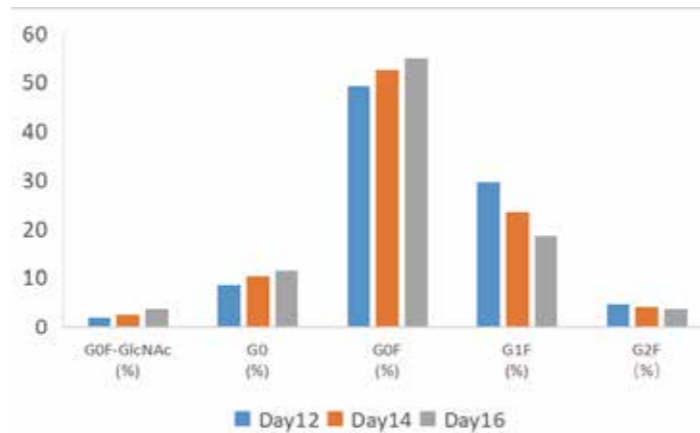
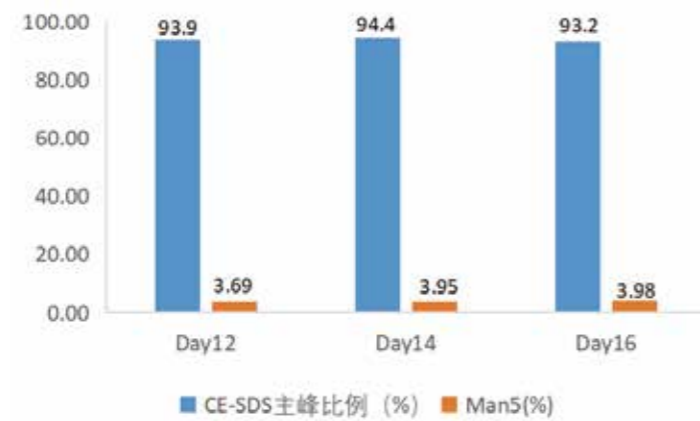
Case Study- Bispecific antibody

Project Name: Project Beta | Sequence: From customers | Cell: CHO-K1Q
 Type: Bispecific antibodies | Carrier: pKS001 | Objective: Development of bispecific antibody cell lines and screen for high-expression clones



By comparing the cell pool status, growth curve and viability curve, Minipool No. 4, No. 5 and No. 7 were selected for monoclonal generalization. After a series of expansion and screening, monoclonal Fed-Batch culture was performed, and the expression level of the culture supernatant was detected using Octet RED96e Protein A. The results show that the expression levels of Top 10 clones have reached above 5.0g/L.

Case Study ADC-IgG

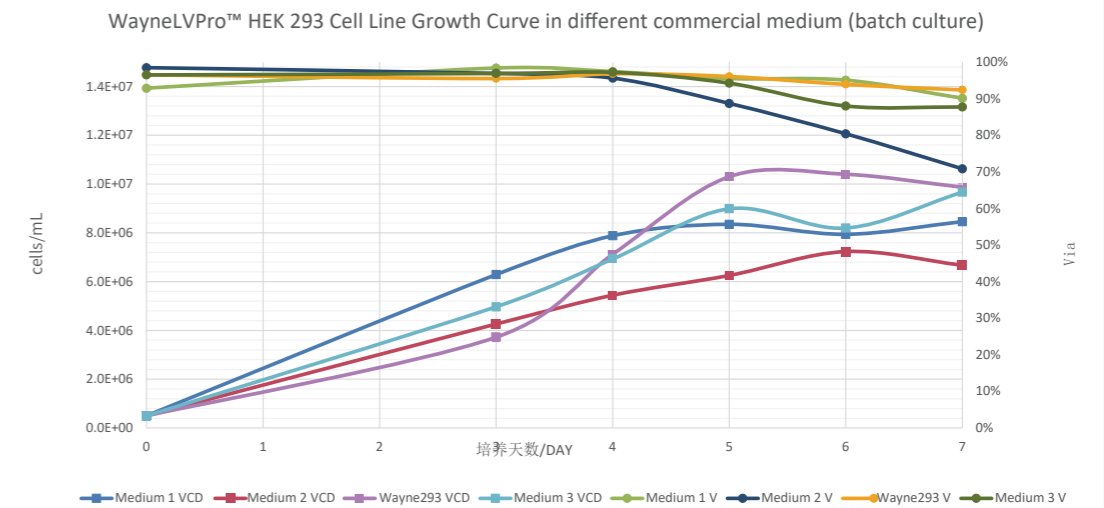


Host cells: CHO-K1Q ; Culture medium: CD02+CB7 ; Project Type:ADC; Expression scale:125 Flask; Incubation days:16 Days; Peak VCD: 28.2×10^6 cells/mL

WayneLVPro™ HEK293 Cell line

Lentivirus packaging tool

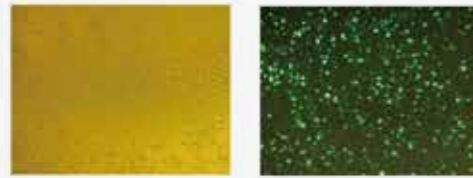
- High virus expression titers
- Clear source, to meet global filing requirements
- Commercial license in China, in line with global intellectual property regulations
- Suspension culture system, the highest cell density is close to 1×10^7 cells/mL



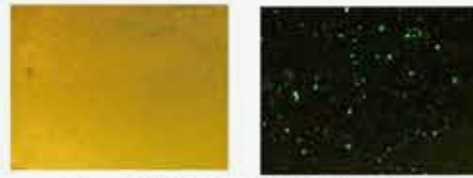
The results:

1. The VCD of WayneLVPro™ HEK293 Cell line is the highest close to 1.0×10^7 cells/mL.
2. WayneLVPro™ HEK293 Cell line is compatible with a variety of medium.

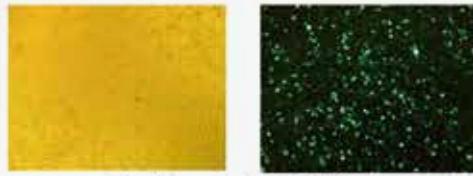
Technical Data



WayneLVPro™ HEK293 Cell Line



Other HEK293 SUSPENSION Cell Line



Viral Production Cell Line

- Cell Line:**
1. WayneLVPro™ HEK293 Cell Line
 2. Other HEK293 SUSPENSION Cell Line
 3. Viral Production Cell Line

Medium: Wayne293® Transfection Medium

Plasmid: GFP-tagged plasmid

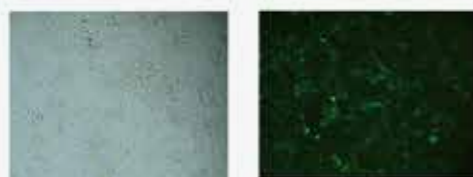
Transfection reagent: PEI

Fluorescence expression of cells was observed under microscope 48 hours after transfection.

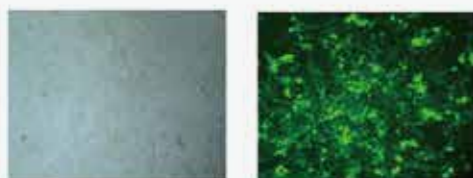
The results: WayneLVPro™ HEK293 Cell Line has the highest transient efficiency, above 85%.



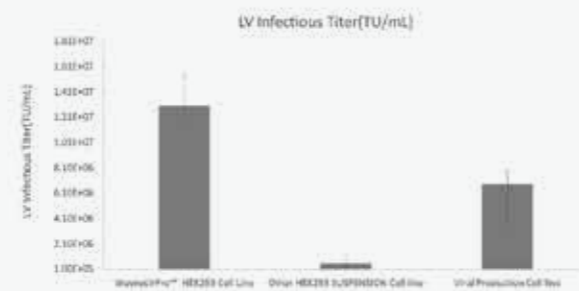
WayneLVPro™ HEK293 Cell Line



Other HEK293 SUSPENSION Cell Line



Viral Production Cell Line

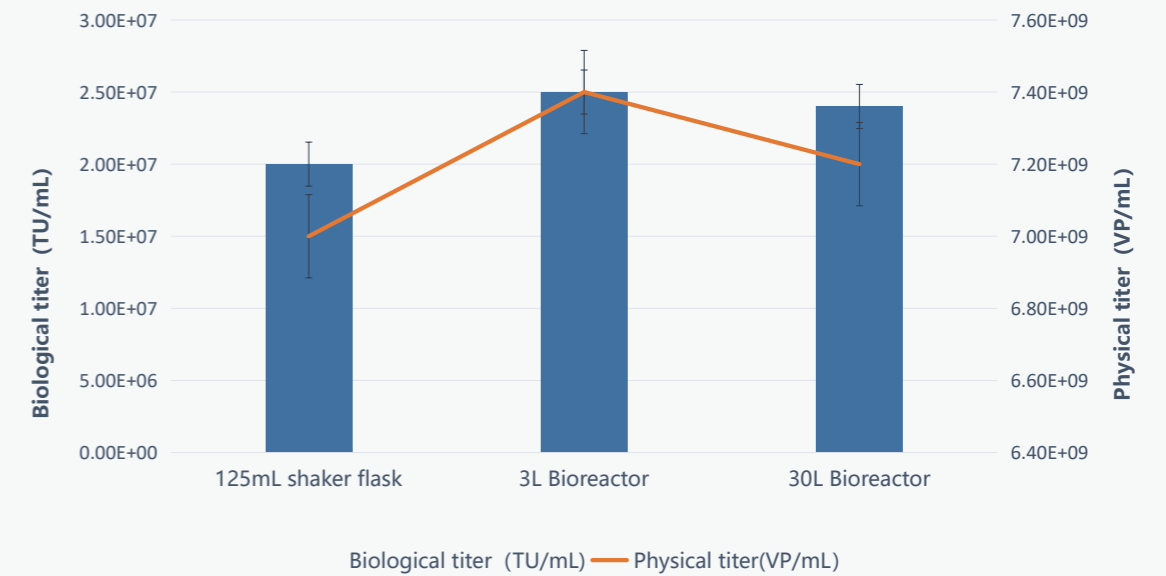


Three different cells were used for virus packaging under the same conditions, and the virus supernatant was harvested to infect HT1080 cells. After 48 hours, the virus titer was calculated according to the positive cell rate. WayneLVPro™ HEK293 Cell Line has the highest viral titer at 1.3x10⁷ TU/mL.

(Formula : TU/ml = (F×Ci/V)×D)

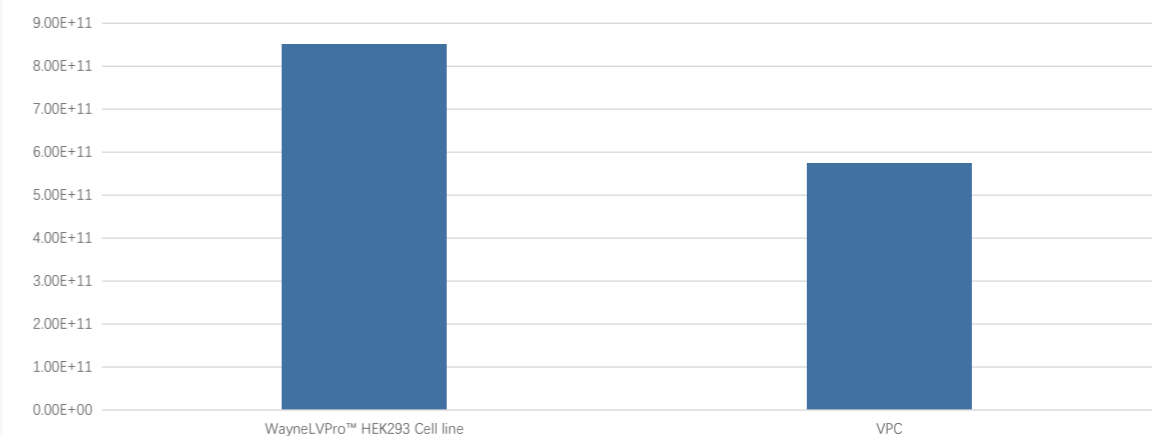
Virus packaging expression

Comparing the titer in different volumes



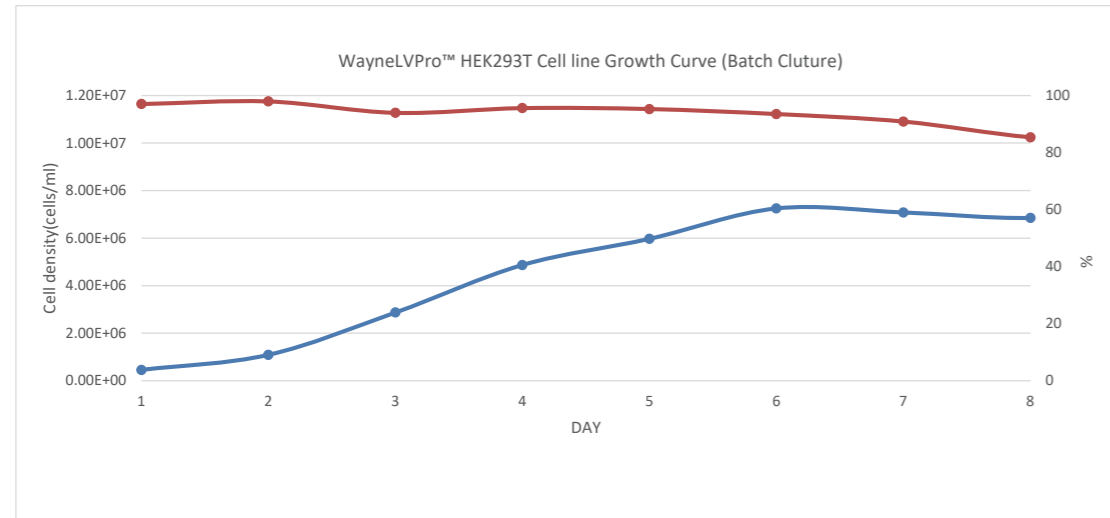
The results :In the case of WayneLVPro HEK293 cell process scale-up, it can still ensure a high lentiviral titer.

AAV (VG/mL)

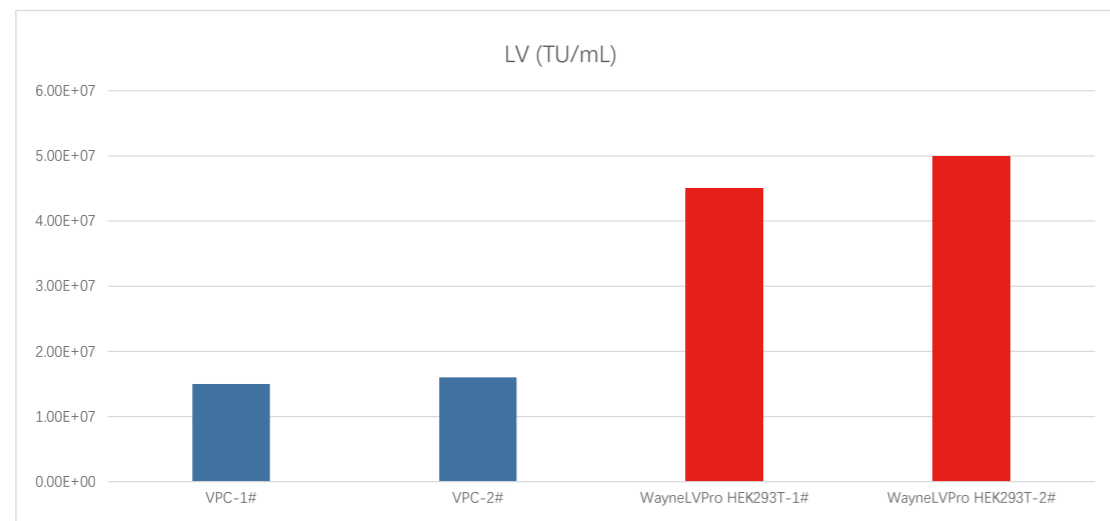


In the same condition, WayneLVPro™ HEK293 Cell line and VPC were used for AAV virus packaging. WayneLVPro™ HEK293 cells has highest AAV titer close to 8.5x10¹¹ VG/mL.

WayneLVPro™ HEK293T Cell line



WayneLVPro™ HEK293T Cell line cells were batch cultured in Wayne293® and Peck VCD closed to 7.8×10^6 cells/mL.



WayneLVPro™ HEK293T Cell Line and other HEK 293s were cultured in Wayne293®, lentivirus packaging was under the same conditions, and the WayneLVPro™ HEK293T lentivirus titers were up to 5×10^7 TU/mL.

Host cell platform support

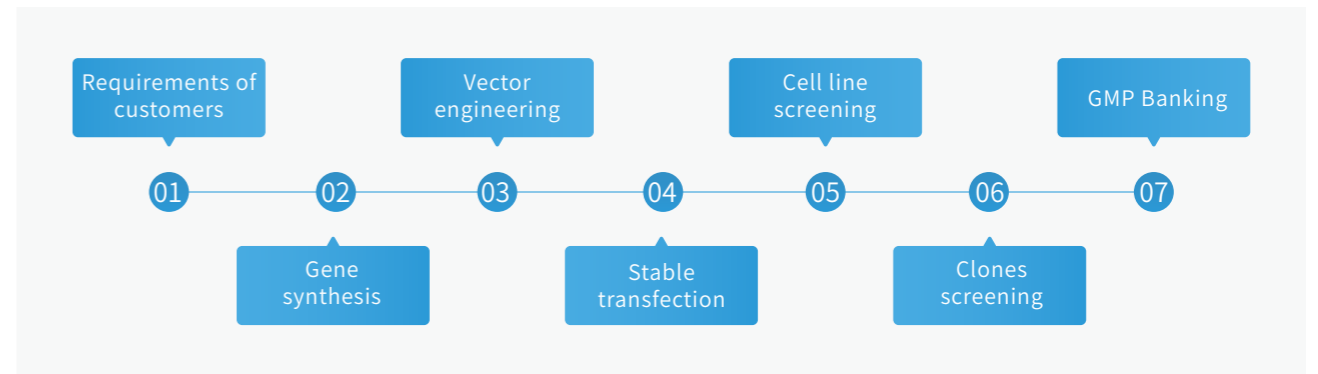
Traceability	Development	License	Support
<ul style="list-style-type: none"> Purchase proof Customs certificate Shipping records 	<ul style="list-style-type: none"> Experimental records Test Report Quality System 	<ul style="list-style-type: none"> Original cell license Quacell license Global commercial application 	<ul style="list-style-type: none"> Supporting series of products Platform technology IND & BLA document support

Ordering Information

Product	Cat.No.	Size	Storage	Application
Quacell® CHO K1Q Cell line	A13101	1.5x10 ⁷ cells/Vail	LN2	Production of protein
Wayne293™ Cell line	A23107	1.5x10 ⁷ cells/Vail	LN2	Production of protein
WayneLVPro™ HEK293 Cell line	A23109	1.5x10 ⁷ cells/Vail	LN2	Transient transfection and stable cell line development for protein
WayneLVPro™ HEK293T Cell line	A23110	1.5x10 ⁷ cells/Vail	LN2	Production of LV, AAV and other related virus vectors



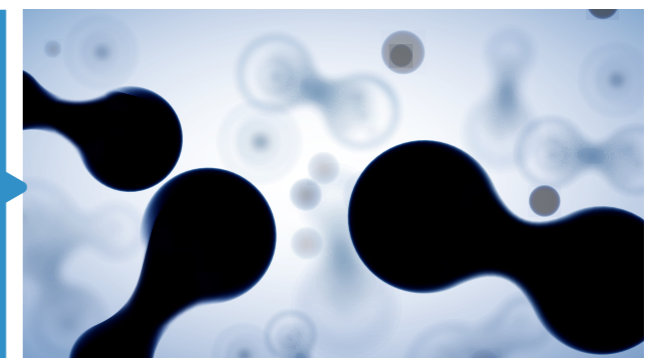
CELL LINE ENGINEERING GMP CELL BANKING



PLATFORM ADVANTAGES



- QuaCell® pKS001 Plasmid
- CHO-K1Q® Cell line
- Single cell Dispenser
- Serial cell imaging
- High-flux instrument Octet RED 96, Improve screening rate
- Rich project experience



COOPERATIVE PARTNER

The image displays a collection of 24 cooperative partner logos, each housed within a white hexagonal tile. The logos are arranged in a honeycomb pattern across the page. The companies represented include:

- 科兴制药 (Kexing Biopharm)
- 联邦制药 (United Laboratories)
- 丽珠医药 (LIVZON)
- 驯鹿医疗 (LUO WUYANG PHARMACEUTICALS)
- 杭州多禧生物科技有限公司 (Hangzhou DAC Biotech Co., Ltd.)
- Akesobio
- 恒瑞医药 (HENG RUI PHARMACEUTICALS)
- ChemPartner (Dedicated to LifeScience)
- 华奥泰生物 (HUAOTA BIOPHARM)
- 扬子江药业集团 (Yangtze River Pharmaceutical Group)
- SAMARTH (LIFE SCIENCES PVT. LTD.)
- 东阳光药 (DONGYANG GUANG PHARM)
- 君实生物 (TopAlliance)
- 百奥泰 (BIO-THERA)
- 九源基因 (JIUYUAN GENETICS)
- BIOTHEUS (普米斯生物技术)
- zaiLab (再康医药)
- BeiGene
- 嘉和 (GENOR BIOPHARMA)
- 依生生物 (YISHENG BIOPHARMA)
- 武汉生物制品研究所有限责任公司 (WUHAN INSTITUTE OF BIOPHARMACEUTICALS CO., LTD.)
- Sputnik V (THE FIRST REGISTERED COVID-19 VACCINE PROVEN HUMAN ADJUVANT VECTIN TECHNOLOGY)
- Innovent (信达生物制药)



生物制药企业无与伦比的合作伙伴

Your Ultimate Biopharmaceutical Partner