

ProBio

Protein & Antibody Drug CDMO Service

Developing Complex Molecules Easily



ProBio

- Global CDMO in biologics and advanced therapies
- Leader in complex molecule development
- We provide premium end-to-end service from discovery to commercialization with professional solutions and efficient processes

90+

protein & antibody
CMC/CMO projects

30+

IND clearances

4

biologics or medical
devices launched



Pass EU QP audition

**Biologics Manufacturing
License**

Developing Complex Molecules Easily

Quality Built From the Very Beginning

- Antibody lead generation & lead optimization with strong track record
- Broad selection of In vitro / in vivo pharmacology service
- Developability assessment & optimization

Breakthrough to Next Levels of Productivity

- Proprietary cell line platform capable to achieve 15g/L[#]
- Process optimization achieved up to 70% reduction in manufacturing cost
- Less than \$100/g* of mAb

Expertise in Proteins & Bispecifics

- Extensive experience in natural proteins, fusion proteins, symmetric bsAb & asymmetric bsAb
- ProBox™ platform for CQA modification and troubleshooting
- Flexible manufacturing scale from 25L to 2000L



[#] Data by June 2024

*DS unit price (a. Fed batch process in 2000L SUB, b. 7g/L, 70% yield, c. annual batch number ≥ 20 batches) , including FFS and material cost

Quality Built From the Very Beginning

ProBio's cutting-edge biologics discovery platform & developability platform deliver biologics candidate of high quality

1900+
antibody discovery
projects

15+
projects in clinical trials
and above

Most advanced
projects are
marketed

3 Technical Campaigns to Get Leads with Good Qualities

- Proprietary hybridoma platform
- ProSpeed™ single B cell screening
- Diversified library for both conventional antibody & sdAb

Optimize Antibody from Developability and Functionality

- Ab humanization
- Ab affinity maturation
- Fc engineering
- Developability optimization

Developability Platform to Guide CMC Strategy

- Colloidal stability study
- Molecular integrity study
- Stressed stability (high temperature, low pH, freeze and thaw)



Comprehensive Cell-based Assays to Narrow Down Leads

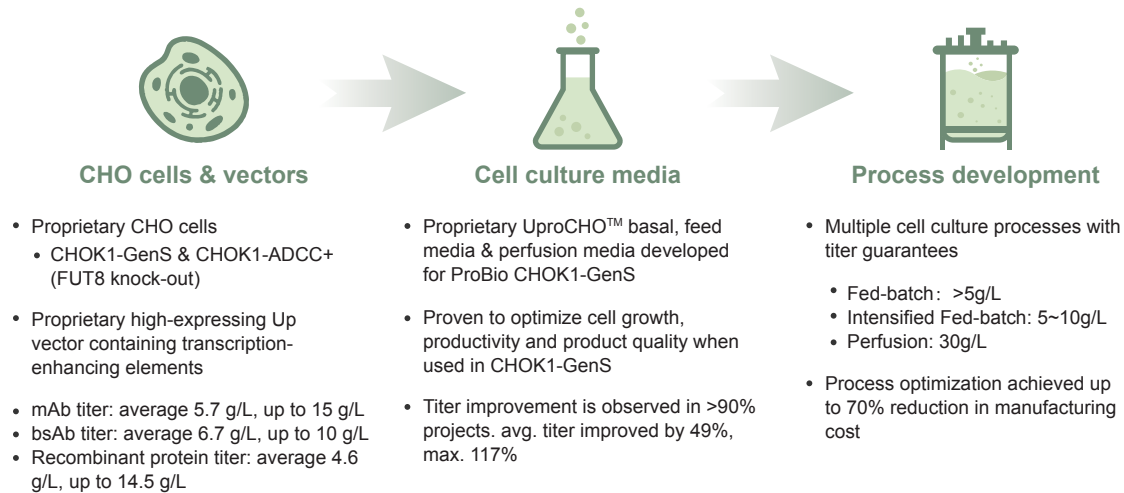
- Bioassay of mAb-Fab/Fc domain
- Bispecific Ab assay
- ADC assay
- CAR-T/NK assay, etc.

In Vivo Pharmacology Platform to Select Final Candidate

- Pharmacodynamics
- Pharmacokinetics
- Toxicology

Breakthrough to Next Levels of Productivity

ProBio's high-expressing, robust and well-proven cell line and process technology ecosystem enables titer as high as 15g/L and saves up to 70% COGS

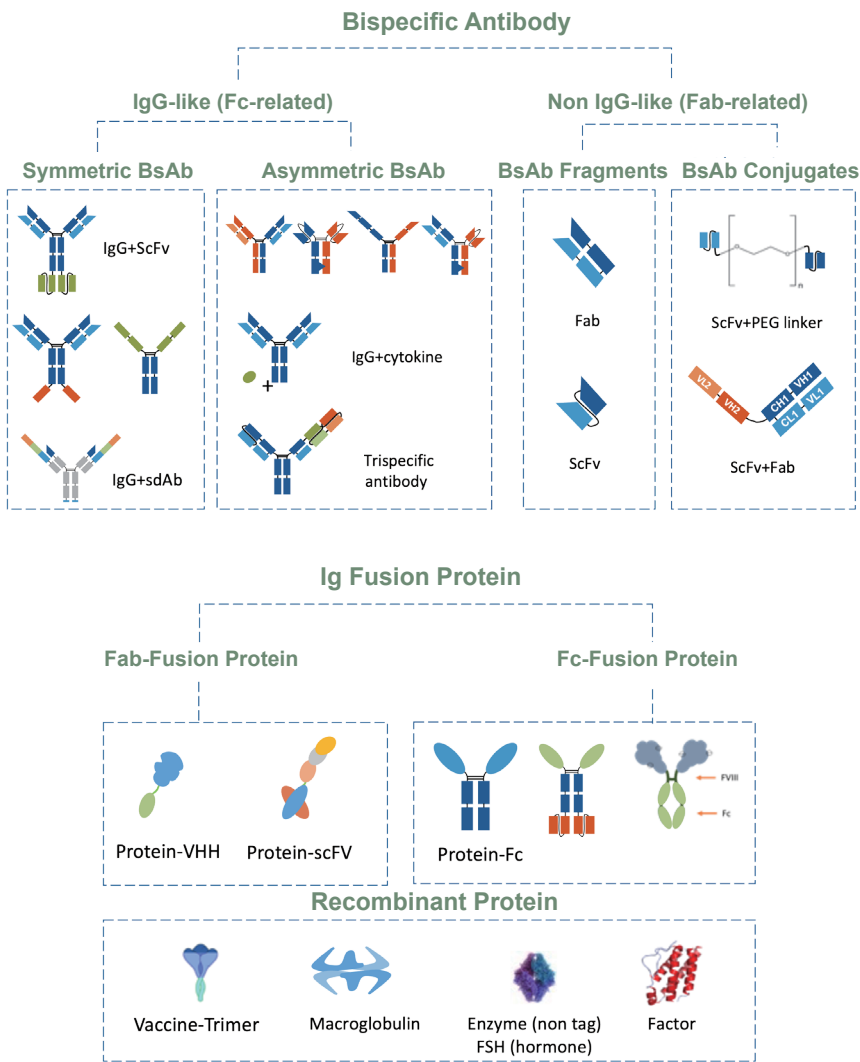


Expertise in Proteins & Bispecifics



- ~50% projects delivered are proteins & bispecific antibodies
- IND clearances for multiple complex modalities: Factor VIII, cytokines, fusion proteins, antibody fragment, KIH, Duobody, scFv fused to IgG, etc.
- Platform process for proteins & bispecifics
- In-house process development intelligence database ProBox™ to empower new projects
- In-house cell line engineering team to develop assay cell line and bioassay according to MOA
- Small to large scale DS GMP manufacturing capacity for proteins & bispecifics
 - 25L, 50L, 80L, 100L, 200L, 500L, 2000L

Protein & Bispecifics Delivered by ProBio



IND-to-BLA GMP Manufacturing Facilities of Global Quality Standard



Bio-R&D Center, Nanjing, China



Bio-MFG Center, Nanjing, China

Nanjing GMP Manufacturing Capacity

- Drug substance manufacturing **2,800L**:
6×200L & 3×500L single-use bioreactors
- Fill and finish line: vial/PFS/lyo/nasal spray
 - **0.3-20mL** high-precision filling



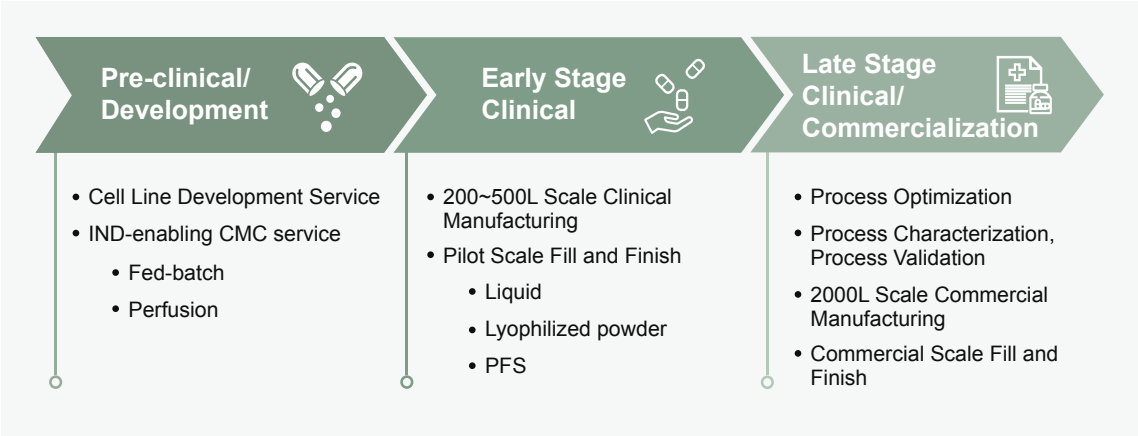
Commercial MFG Center, Zhenjiang, China

Zhenjiang GMP Manufacturing Capacity

- Drug substance manufacturing **17,250L**:
8×2,000L single-use bioreactors
- Fill and finish line: vial/lyo
 - Up to filling **17** million vials/year
 - **0.3-20mL** high-precision filling

- Pass EU QP audit with zero observation
 - NMPA drug manufacturing license
- 150+ customer audit
 - PAI from BPOM (Badan Pengawas Obat dan Makanan, Indonesia FDA)

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Contact us

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