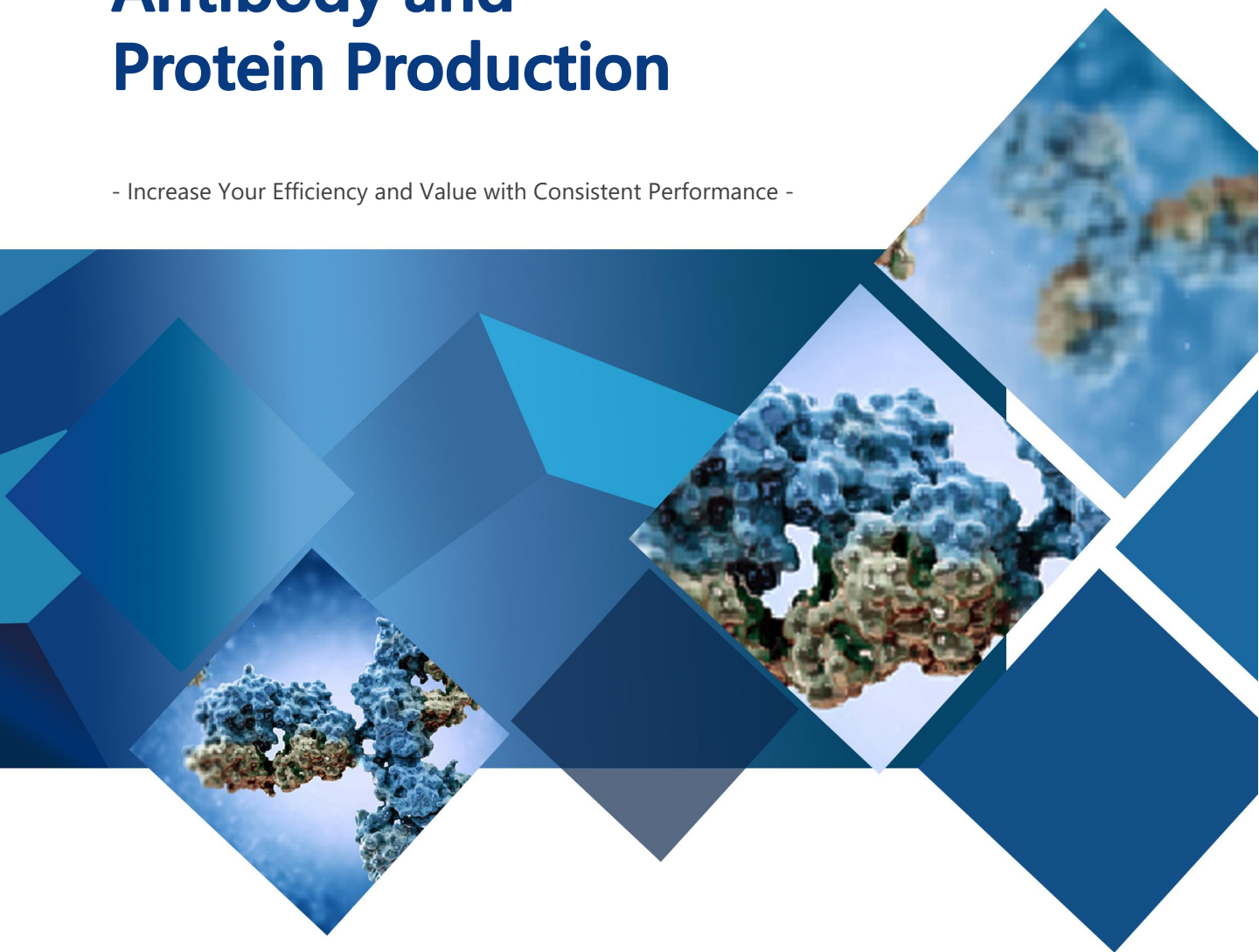


Antibody and Protein Production

- Increase Your Efficiency and Value with Consistent Performance -



Let the antibody and protein experts at Creative Biolabs design and generate therapeutic antibodies and proteins to meet your precise requirements of cancer treatment.

As a reliable and trusted contract research organization, Creative Biolabs has accumulated extensive experience in the discovery and development of optimized therapeutic antibodies and proteins such as monoclonal antibody, bispecific antibody, anti-idiotypic antibody, antibody-drug conjugates, and enzymes, cytokines, or membrane proteins *etc.* Relying on the expertise of senior scientists with more than 25 years of experience and best-in-class equipment, our unique modules of integrated services enable us to guide our clients through antibody or protein drug discovery challenge from target selection to IND regulatory support.



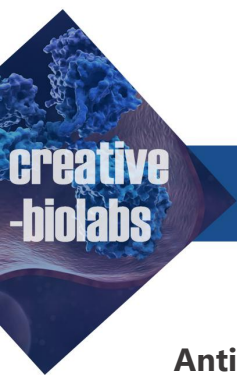


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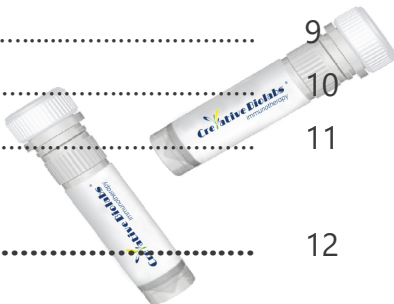
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Designed Just for You

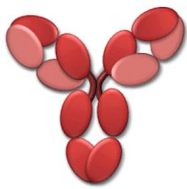
To ensure the best quality of our antibody and protein production service, including the highest purity of the product and the lowest risk of contamination, Creative Biolabs has developed several platforms supported by our recombinant protein production scientists. In addition, we also have quality control lab, molecular biology lab, etc.



Various Therapeutic Antibody Types

Chimeric, Humanized and Human Monoclonal Antibodies

We provide a broad range of therapeutic antibody types for a wide application to fit your projects.



Mouse



Chimeric



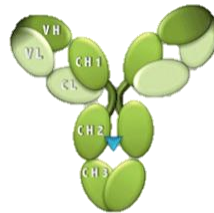
Humanized



Human

Antibody Fragments

It is possible to produce various antibody fragments that retain the binding activity of the full-length molecule and to use these new formats in certain specific applications. The antibody fragments' production is also available in Creative Biolabs.



Fc



Fab



scFv



HcAb



sdAb



BsAb



Bispecific Fab'2



Immunotoxin or
Immunocytokine



BsFab



Tandem scFv



Diabody



Single chain Diabody



Minibody

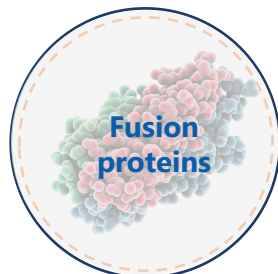
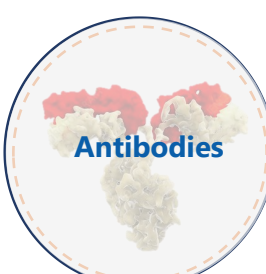
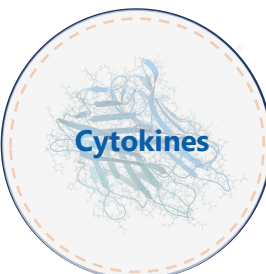
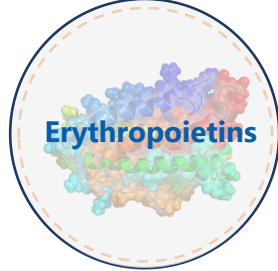
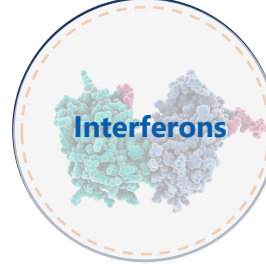
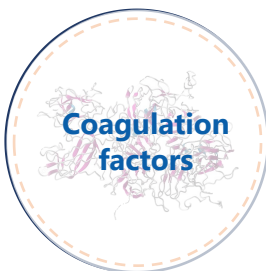
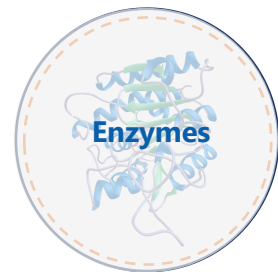
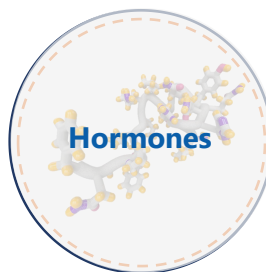
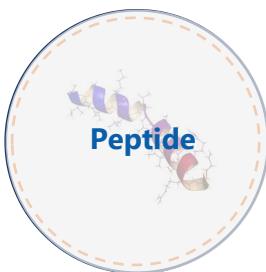
Various Therapeutic Protein Types

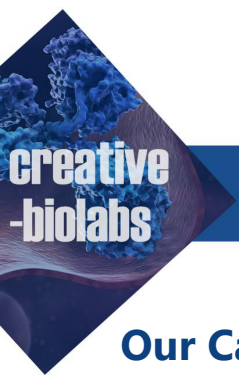
Earning the Trust of Our Clients everywhere, every day

Relying on the expertise of senior scientists with more than 25 years of experience and best-in-class equipment, our unique modules of integrated services enable us to guide our clients through antibody or protein drug discovery challenge from target selection to IND regulatory support.



Discover Integrated Solutions From the Lab to the Clinic for Various Therapeutic Proteins

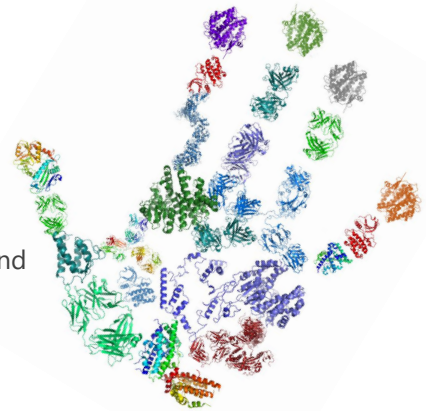




Antibody and Protein Production

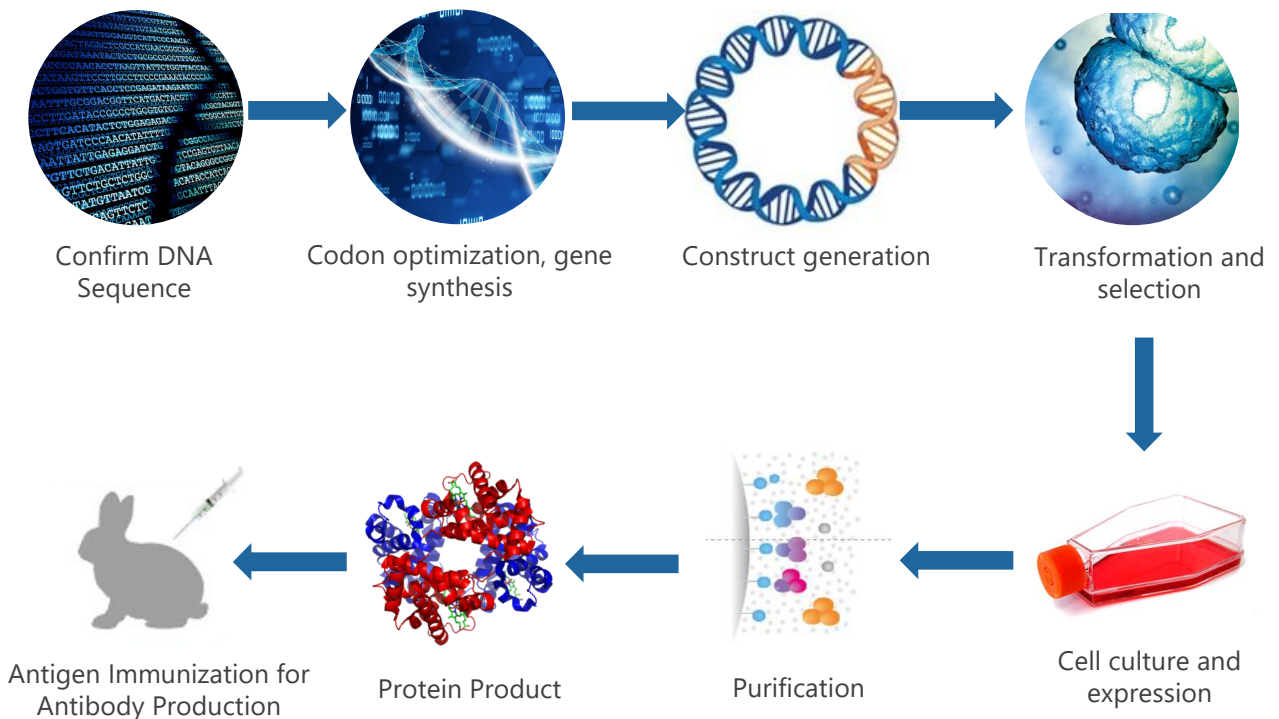
Our Capacity

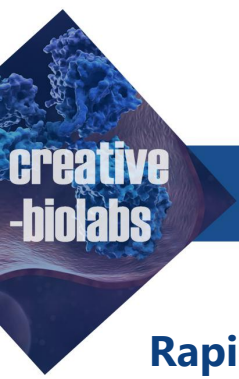
We offer small to large-scale protein expression and purification services through 5 platforms at a competitive price. In the meanwhile, we provide advanced and custom service portfolio including screening in different expression systems in parallel or in different expression conditions in a given system. Our comprehensive services include all phases from gene synthesis, vector construction to small scale protein production in flasks and large-scale protein production in bioreactors and fermenters.



Antibody and Protein Production Processes

Creative Biolabs has developed very complete production platforms to tackle any challenge in combination with the whole production lifecycle. For detailed information, please visit www.creative-biolabs.com/immuno-oncology/

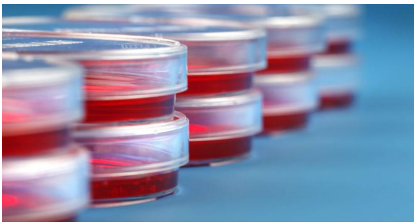




HEK293 - Antibody and Protein Production

Rapid, High-yield HEK293 Expression

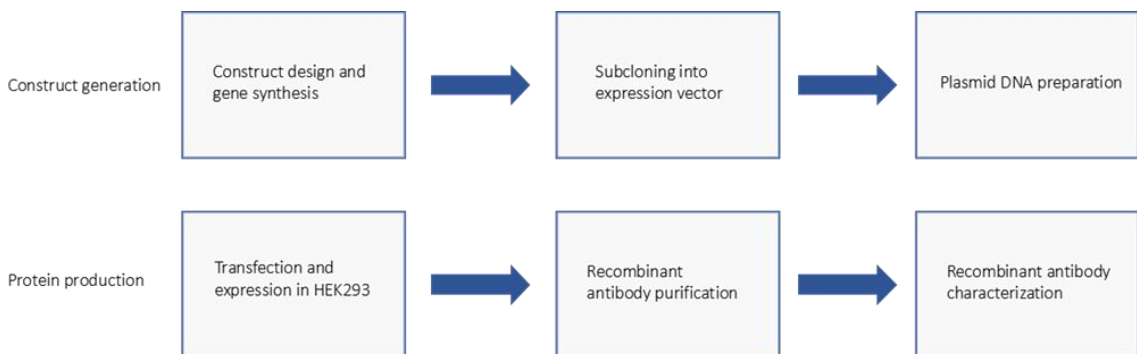
Drawing on many years of experience, we design guided strategies to produce high-quality antibodies or proteins based on HEK293 system.



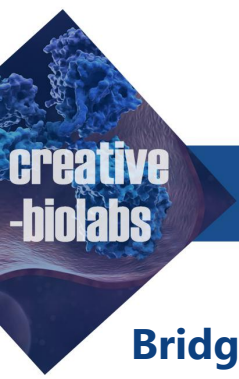
A reliable and robust platform to produce recombinant antibodies, antibody fusion proteins and some other proteins such as G protein coupled receptors, voltage sensitive ion channels and ligand-gated ion channels.

Our HEK293 Expression Solutions

To produce wide range of scales ranging from hundreds of micrograms to hundreds of milligrams for recombinant antibody, our HEK293 antibody and protein production system is established including vector optimization, cell culture medium, and large-scale production. Our state-of-the-art HEK293 expression technology allows us to provide high-quality production of functional recombinant proteins or antibodies with high purity, in high throughput at affordable cost.



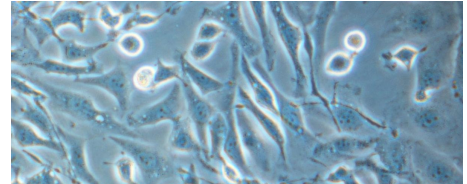
- Volume: ranging from 0.03 liter up to 10 liters;
- Protein A purification as a recommended choice, protein G is also available;
- Sequence of antibody (inquire if it's not available);
- Transfection ready DNA (not needed if DNA scale-up is also assigned to Creative Biolabs).



CHO - Antibody and Protein Production

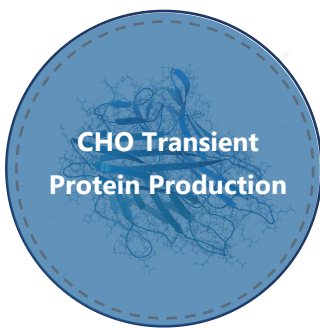
Bridge the Distance Between Upstream and Downstream

We are committed to rapid and high-yield expression system to help you obtain recombinant proteins and antibodies in quick turnaround time.

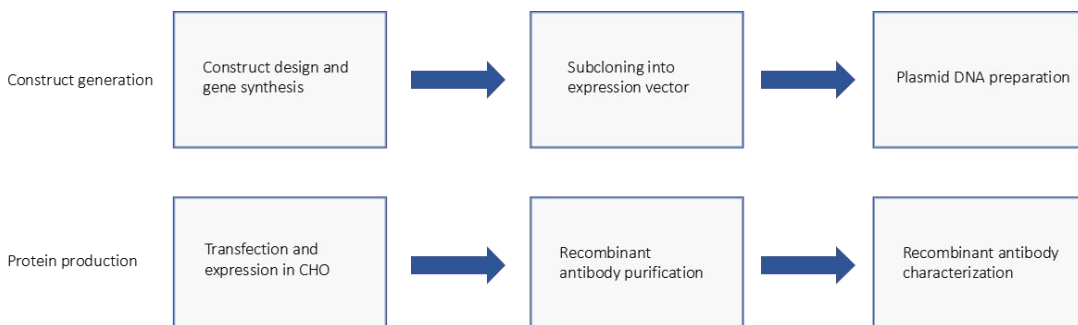


- Glycosylation can be realized for protein functionality;
- Reduced levels of endotoxin contamination;
- Can be amenable to GMP procedures and large scale in suspension culture;
- Be produced by various batches of cultures with better stability and safety profiles;
- Reduced susceptibility to some viral infections.

Our CHO Expression Solutions



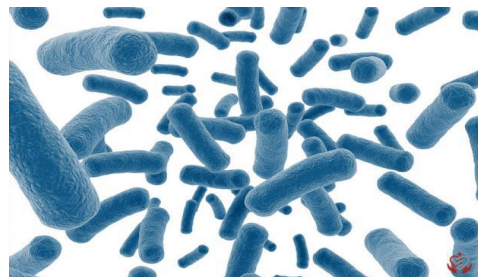
The most popular mammalian system for biopharmaceutical manufacturing in recombinant protein production.



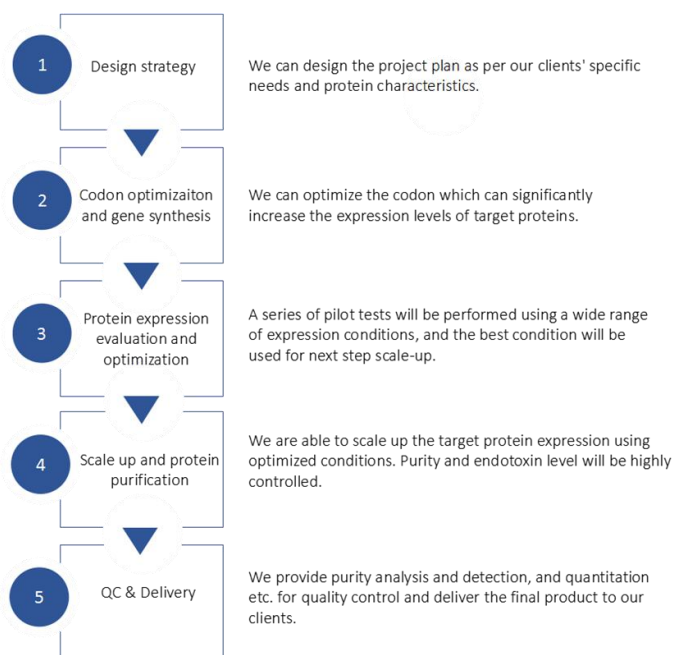
Bacterial Protein Production

100% Guaranteed Bacterial Recombinant Protein Expression Service

With years of extensive discovery and development experience in the field of recombinant protein expression, Creative Biolabs offers high quality recombinant custom protein services at high yields with less time. Our team will help you achieve your goals more quickly and efficiently. We aim to accelerate protein production and become your reliable partner and help you explore frontiers in cancer immunotherapy.



Our End-to-End Bacterial Expression Solutions



Highlight Features

- Codon optimization will be performed to increase the expression level of protein;
- Quantity, purity, tags, and endotoxin levels can be customized;
- Various modifications are available;
- Reduced timeline and high productivity.

Yeast Protein Production

Your Most Reliable & Cost-Effective Protein Partner

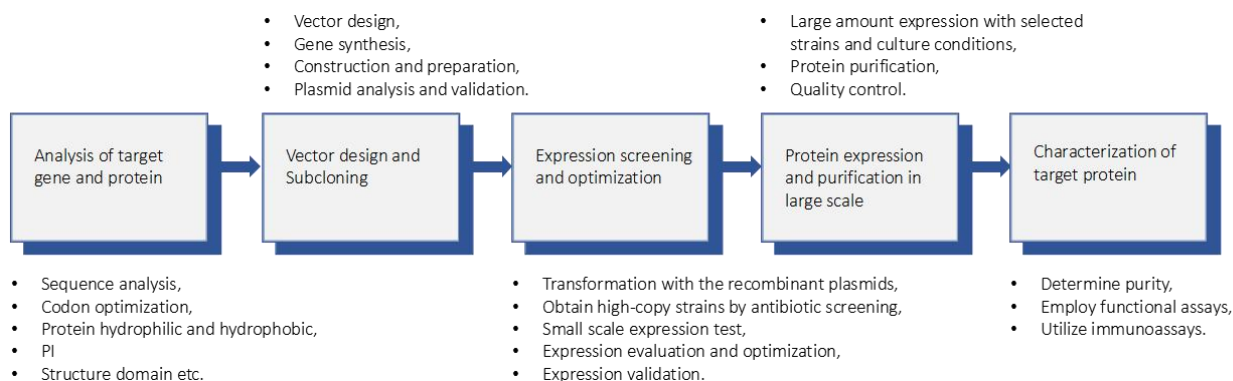
Creative Biolabs offers flexible, effective and controllable solution for protein expression *via* our yeast protein production platform. The strains used in our platform have been well characterized and validated for the capability of post-translational modifications. Before initiating the project, we will provide an assessment and make proposals regarding the yeast platform with appropriate scalability, yield and functionality.



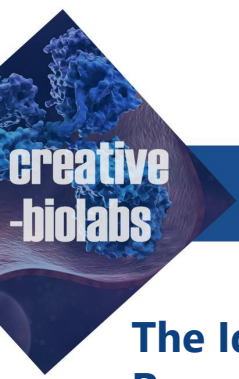
Advantages

- Low cost for simple culture medium which lacks endotoxin;
- High expression yield;
- Easy genetic manipulation;
- Post-translational modifications are available, such as disulfide bond formation, protein folding, glycosylation, and proteolytic processing;
- Efficient secretory pathway is available which can simplify downstream processing.

Our One-Stop Yeast Expression Solutions



- Yeast strains: *Saccharomyces*, *Pichia*, *Kluyveromyces*, *Hansenula*, *Yarrowia* and Baker's yeast, *etc.*;
- Tags: Fc, His, GST, FLAG, SUMO, *etc.* are typically used to assist protein purification;
- Purification methods: affinity chromatography, ion exchange chromatography, hydrophobic interaction chromatography, size exclusion chromatography;
- Optional services: tag removal, endotoxin removal, protein solubilization and refolding.



Insect Protein Production

The Ideal Partner for Your Recombinant Protein Production

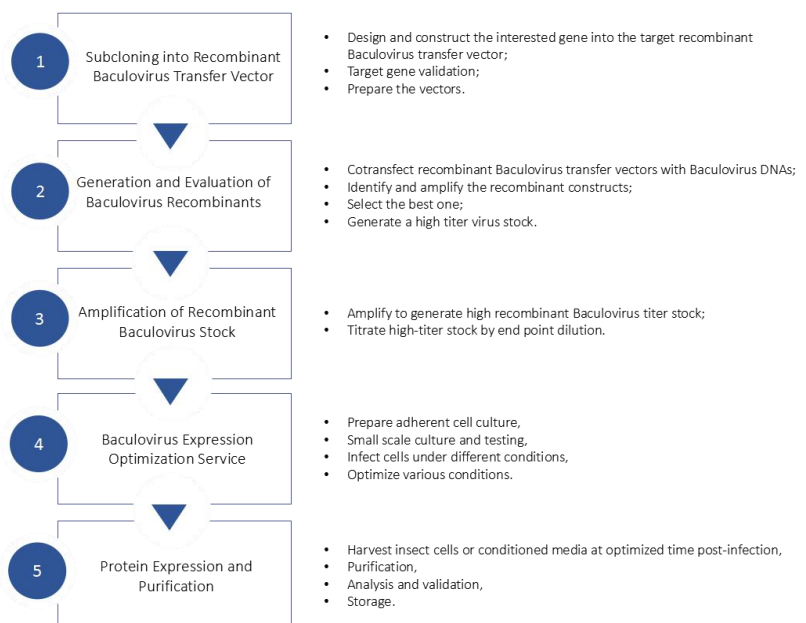
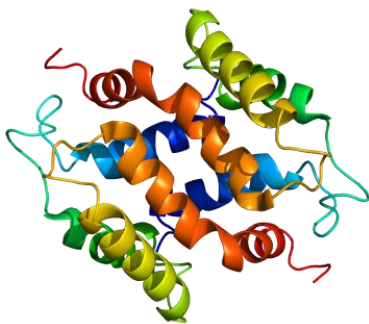
“ We aim to help you get what you need faster! ”

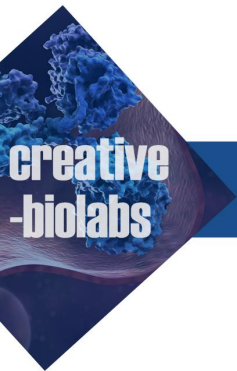


Our Insect Expression Solutions

For challenging or insoluble proteins, we recommend baculoviral system with correct protein folding and post-translational modifications. Our one-stop solution starts from cDNA sequence to ultimate protein production.

Items	Details
Host Cells	SF9, SF21, High Five
Technology	Insect cell culture, Baculovirus expression, Serum-free cell culture
Purification	His, GST, FLAG, SUMO and Strep-tag II tags are typically fused to recombinant proteins to assist purification
Quality	Typically, >90% purity
Service modules	Vector construction, Virus generation, Small scale expression and optimization, Large scale expression and purification, SEC polishing
Optional services	Low endotoxin processing, protein titer quantification (HPLC), affinity tag removal by protease cleavage, analytical protein characterization including C-IEF, SEC-HPLC, mass-spec, thermal stability analysis, and protein formulation optimization, scaled up to 10 liters or higher.





Custom Antibody and Protein Production

Accelerated & Innovative Therapeutic Antibody Production via Custom Solutions

Leverage the expertise of our experienced scientist to expedite your therapeutic antibody and protein production engineering. Project design and initial thoughts are utmost welcome to let us know. The most appropriate project plan will be proposed to best tailor your demands.

Advantages of four systems of heterologous protein expression for recombinant protein production

Expression system	Time	Cost	PTM	Low endotoxin levels	Simple process scale up
Bacteria	☆☆☆☆	☆☆☆☆	☆	☆	☆☆☆
Yeast	☆	☆☆☆	☆☆	☆☆☆☆	☆☆
Insect	☆	☆☆	☆☆☆	☆☆☆☆	☆
Mammalian cells	☆☆☆	☆	☆☆☆☆	☆☆☆☆	☆☆

Our Mission

Maximize Your Efficiency and Value with Consistent Performance

Leverage the expertise of our senior scientists to obtain therapeutic antibodies or proteins to fit your project.

Please visit www.creative-biolabs.com/immuno-oncology/ to find out more.



→ Contact Us