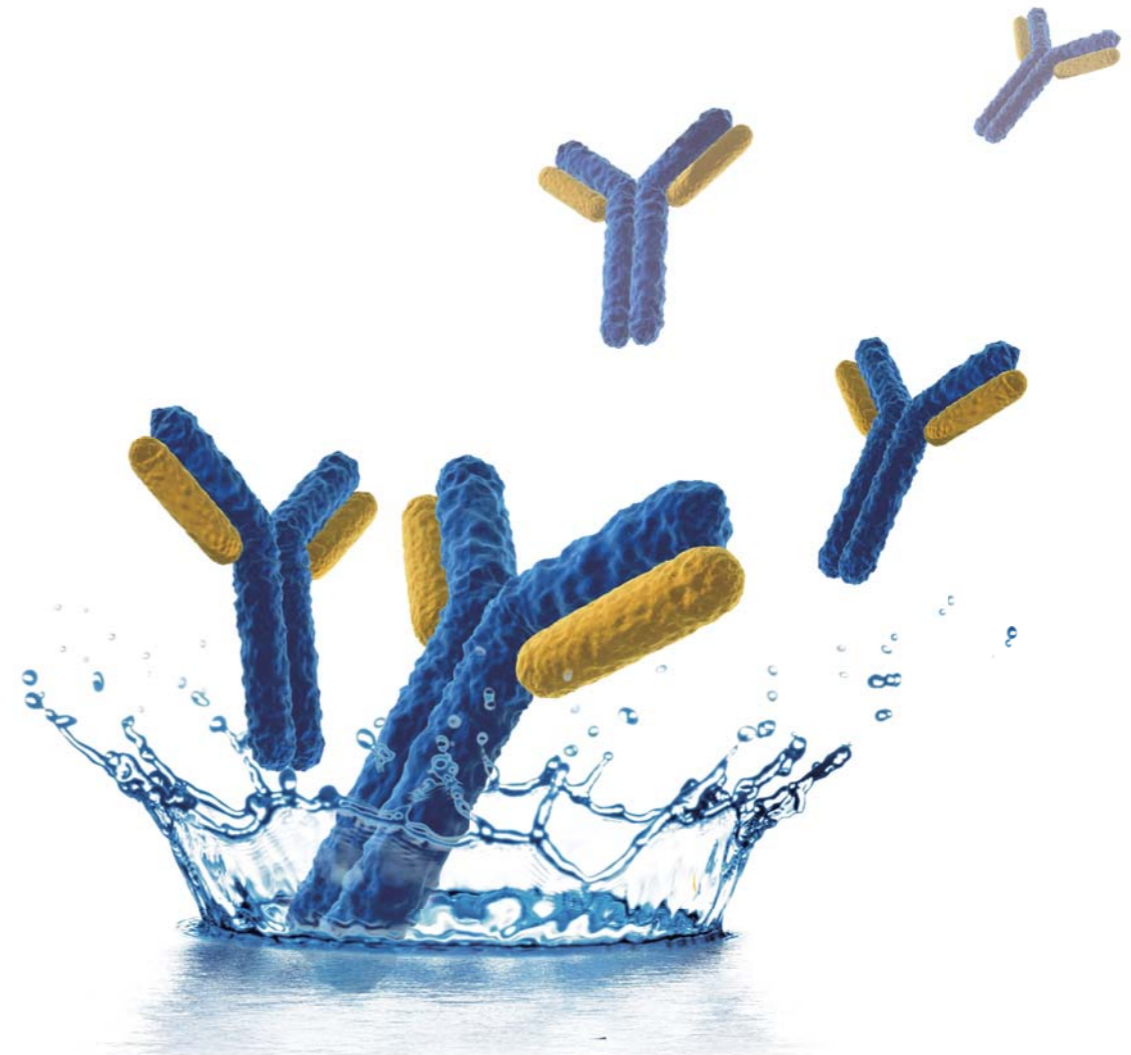


# Antibody Services from GenScript

*One Stop Solution for Biology Research*



[www.GenScript.com](http://www.GenScript.com)

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860 Centennial Ave.,  
Piscataway, NJ 08854 USA  
Toll-Free: 1-877-436-7274  
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1-732-885-5878

Y Academic Services

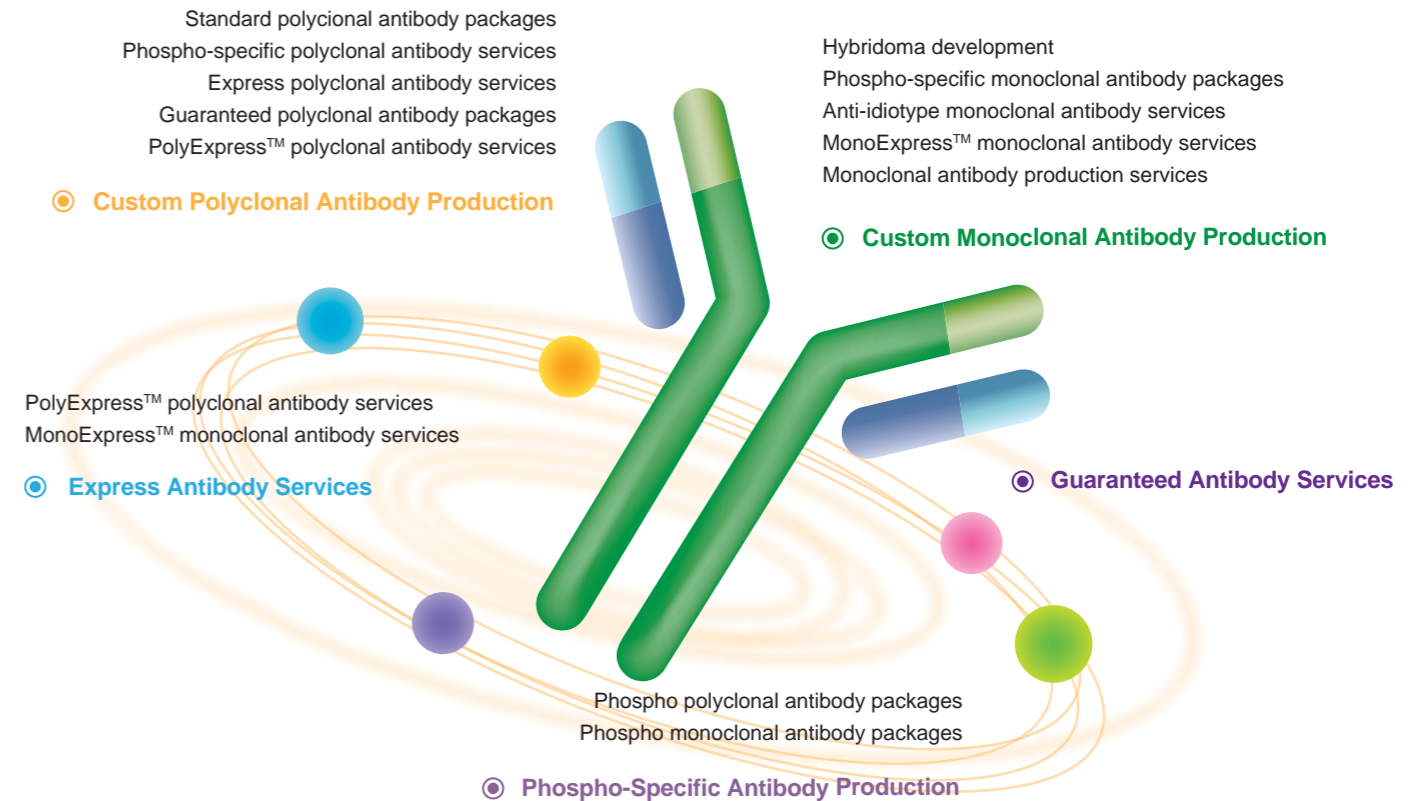
Y Pharmaceutical Services



At GenScript we understand the great diversity in research topics and customization needs that our customers represent and have worked hard to consistently update our service packages to reflect those needs. Antibody production can be tedious and fraught with complications, which wastes precious time and resources better spent elsewhere. By outsourcing your antibody production or modification project to GenScript, you make the choice to simplify your research. There is no need to patron multiple vendors to piece together a custom package. We offer **one-stop solutions** to match our customers' antibody needs taking you from gene or antigen sequence to antibody development, premium hybridoma development, assay development, and beyond. Our new state-of-the-art animal facility combined with our ground-breaking advances in immunization and other technologies allow us to offer a complete selection of custom antibody services which deliver antibodies faster and at lower cost than any other vendor. GenScript makes research easy with experienced professional employees, rigorous quality control, and flexible customization options to make any project, no matter how challenging, easy for you. All antibodies are generated from our AAALAC Internationally accredited and OLAW assured animal facilities.



## One Stop Solution for Biology Research

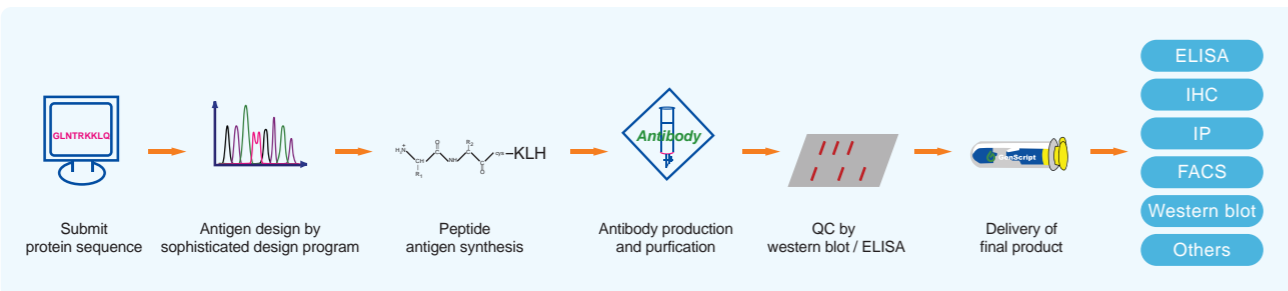
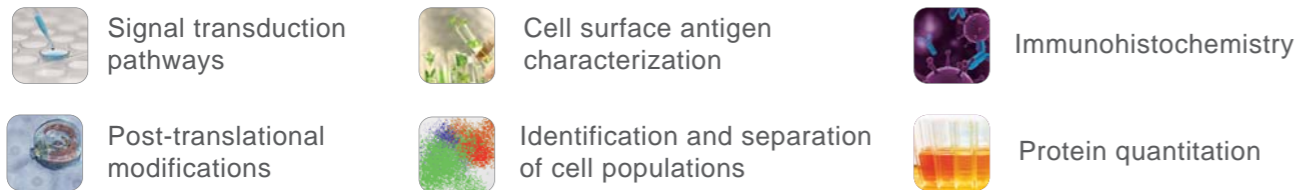


The GenScript logo resembles a drop of water and symbolizes the source of life. It inspires our dedication to evolve with our customers and push the limits of technology to save more lives by providing early drug discovery and development services. Founded in 2002, GenScript has grown together with the synthetic biology industry and is now the world's largest gene synthesis supplier. Headquartered in New Jersey with subsidiaries in Europe, Japan, and China, GenScript consistently provides the best research services to the scientific community worldwide. Built on our assembly-line mode, one-stop solutions, continuous improvement, and stringent IP protection, GenScript provides a comprehensive portfolio of services. Besides our world-renowned gene synthesis service, GenScript offers comprehensive services for biological research and early-phase drug discovery, such as bio-reagents, agricultural research, food industry research, assay development & screening, antibody drug development and research, and animal model services. With an impressive track record of success, GenScript is your ideal, reliable innovation partner in advancing and transforming biology research to make your research easy.

## Academic Services

With the shrinking pool of funding for academic research these days come more concerns than ever about grant applications and staying ahead in your field. Even one success does not guarantee any batch consistency next time, and there are no guarantees that the project will ever result in the antibody you need. Why take on the risk of failure and loss of precious funds when GenScript offers industry-leading guarantees for both our polyclonal and monoclonal antibody service packages, many of them risk free to you, which deliver **quality tested, high titer, and custom antibodies** in record time? Our impressive capabilities and commitment to raising the bar are exemplified by our **PolyExpress™** and **MonoExpress™** express Ab packages. By taking advantage of our wide range of services, you will receive high-quality antibodies which can accelerate your research and help you meet grant application deadlines, publish papers faster, achieve tenure, or revive a stalled project.

### ★ Application Highlights



### Technology Advantage

- OptimumAntigen™ design software designs peptides for antibody production by measuring each peptide antigen against several protein databases to confirm the desired antibody and epitope specifically
- T-Max™ Adjuvant is a novel immunization adjuvant which elicits stronger and faster cellular immune response and longer immune stability, making production of high-titer, high-affinity antibodies possible
- GANP® Transgenic Mice are licensed from Transgenic Inc. which allow for the production of high-affinity and high-specificity antibodies through overexpression of Germinal Center Associated Nuclear Protein (GANP)



## Highlighted Services

- Express 45 day Ab service packages
- Anti-idiotypic and phospho-specific Ab packages
- Fully customizable options
- Quantity, purity, and quality guarantees

## PolyExpress™ pAb Services IN 45 DAYS



## Polyclonal Antibody Packages

### PolyExpress™ pAb Services

PolyExpress™ Antibody Standard Service offers an unprecedented guarantee to our customers ensuring delivery of 1-5 mg of purified antibody with a final ELISA titer of at least 1:32,000. With our silver and gold packages delivering more pAb for your target protein, you can stretch your research dollars, further increasing your opportunity for success by 2-3 times over other commercial pAb. Delivery comes at record-breaking speed in only **45 days (from order to delivery)**, faster than any other vendors and at the competitive price of only **\$1,099 for 2 custom antibodies**. All of this comes with a free-if-fail guarantee that eliminates the risk to you. This package can't be mimicked by others.

### PolyExpress™ Rabbit Polyclonal Antibody Packages\*

Package	Antigen peptides	Antibodies production	Features	Deliverables
<b>PolyExpress_Standard</b>	1 peptide antigen sequence for target protein	1 Ab generated against protein	Thousands of successful cases	<ul style="list-style-type: none"> <li>• 1-5 mg affinity-purified antibodies</li> <li>• 2mg free peptide, MS and HPLC reports</li> </ul>
<b>PolyExpress_Silver</b>	2 peptide antigen sequences for target protein	2 Ab's generated against protein	WB detection of native protein success ~ <b>85%</b>	<ul style="list-style-type: none"> <li>• 2 affinity-purified antibodies (1-5 mg/each)</li> <li>• 4mg free peptide, MS and HPLC reports</li> </ul>
<b>PolyExpress_Gold</b>	3 peptide antigen sequences for target protein	3 Ab's generated against protein	WB detection of native protein success ~ <b>95%</b>	<ul style="list-style-type: none"> <li>• 3 affinity-purified antibodies (1-5 mg/each)</li> <li>• 6mg free peptide, MS and HPLC reports</li> </ul>

\* Starting materials: antigen sequence, peptide-antigen or protein-antigen

\*\*Silver and gold packages only apply to a single target protein sequence. Cannot be combined from different protein targets.

All packages include:

- Gene synthesis, peptide design, carrier conjugation and antibody purification
- Guarantee a final ELISA titer of at least 1:32,000
- Antibody Certificate of Analysis report including antigen info, antibody QC data
- 0.5 ml of pre-immune serum

## Service Package Highlights

Complete Affinity-Purified Peptide pAb Package		
Customer Provides	Deliverables	Delivery Time
<ul style="list-style-type: none"> <li>Antigen sequence, peptide-antigen or protein-antigen</li> </ul>	<ul style="list-style-type: none"> <li>3-50 mg affinity-purified antibodies (ELISA titer of <math>\geq 1:32,000</math>) (liquid recommended)</li> <li>5 mg of unconjugated peptide</li> <li>1-2 ml of pre-immune serum</li> <li>ELISA results, Antibody Certificate of Analysis report, MS and HPLC reports</li> </ul>	<ul style="list-style-type: none"> <li>Total: 15-17 weeks</li> </ul>

Western-Guaranteed Peptide Polyclonal Antibody Package		
Customer Provides	Deliverables	Delivery Time
<ul style="list-style-type: none"> <li>Antigen sequence, peptide-antigen or protein-antigen</li> </ul>	<ul style="list-style-type: none"> <li>3-50 mg purified antibodies</li> <li>1-2 ml of pre-immune serum*</li> <li>5 mg unconjugated peptide</li> <li>MS and HPLC reports</li> <li>Western blot, ELISA titer reports, Antibody Certificate of Analysis Report</li> </ul>	<ul style="list-style-type: none"> <li>Total: 18-20 weeks</li> </ul>

Phospho-Specific Polyclonal Antibody Package		
Customer Provides	Deliverables	Delivery Time
<ul style="list-style-type: none"> <li>Antigen sequence, peptide-antigen or protein-antigen</li> </ul>	<ul style="list-style-type: none"> <li>1-30 mg purified antibody</li> <li>5 mg phosphopeptide</li> <li>5 mg non-phosphopeptide</li> <li>1-2 ml of pre-immune serum*</li> <li>ELISA results, Antibody Certificate of Analysis Report, MS and HPLC reports</li> </ul>	<ul style="list-style-type: none"> <li>Total: 15-17 weeks</li> </ul>

\*For collection and purification of antibodies from separated animals, a total of 2 ml of pre-immune serum (1 ml from each of the 2 animals) are provided. For antibody purification from pooled serum, 1 ml of pre-immune serum is provided.



## Monoclonal Antibody Packages

### MonoExpress™ Guaranteed mAb Service

Our MonoExpress™ Western Guaranteed Antibody Service package delivers antibodies four months faster than traditional immunization protocols in **45 days** starting from just **\$3,800**. This package guarantees at least one clone with positive western blot results for immunogen. This is achieved through the smooth integration of our proprietary technologies in the fields of gene synthesis, protein expression and antibody generation. This offer cannot be matched by any other vendor and is available exclusively from GenScript.

### MonoExpress™ Western Guaranteed Antibody Services

Customer Provides	Deliverables
<ul style="list-style-type: none"> <li>1-2 mg purified protein of &gt;75% purity at &gt;0.4 mg/ml or</li> <li>Name, species, sequence, and NCBI accession number of target protein, and full length cDNA plasmid (&gt;500 ng)</li> </ul>	<ul style="list-style-type: none"> <li>Up to 5 hybridoma cell lines, 2 vials for each cell line</li> <li>2 mg purified antibody for customer-selected positive clone</li> <li>Antibody Certificate of Analysis Report</li> </ul>

## Service Package Highlights

Complete Peptide Monoclonal Antibody Package		
Customer Provides	Deliverables	Delivery Time
<ul style="list-style-type: none"> <li>Antigen sequence, peptide-antigen or protein-antigen</li> </ul>	<ul style="list-style-type: none"> <li>Up to 5 hybridoma clones</li> <li>2 vials of cell culture for each clone</li> <li>5 ml of culture supernatant</li> <li>5 mg of unconjugated peptide</li> <li>Antibody Certificate of Analysis Report</li> </ul>	<ul style="list-style-type: none"> <li>Total: 5-7 months</li> </ul>

Phospho-Specific Monoclonal Antibody Package		
Customer Provides	Deliverables	Delivery Time
<ul style="list-style-type: none"> <li>Antigen sequence, peptide-antigen or protein-antigen</li> </ul>	<ul style="list-style-type: none"> <li>2 positive hybridoma clones</li> <li>5 ml positive supernatant for each clone (lyophilized)</li> <li>5 mg phosphopeptide</li> <li>5 mg non-phosphopeptide</li> <li>Antibody Certificate of Analysis Report</li> </ul>	<ul style="list-style-type: none"> <li>Total: 5-7 months</li> </ul>

Peptide Supplied MonoExpress™ Antibody Service		
Customer Provides	Deliverables	Delivery Time
<ul style="list-style-type: none"> <li>Antigen sequence, peptide-antigen or protein-antigen</li> </ul>	<ul style="list-style-type: none"> <li>Guaranteed 2 ELISA-positive clones with GenScript designed and produce antigens</li> <li>Up to 5 specific hybridoma</li> <li>5 ml of culture supernatant for each clone</li> <li>3 mg unconjugated peptide</li> <li>Full project report</li> <li>Antibody Certificate of Analysis Report</li> </ul>	<ul style="list-style-type: none"> <li>Total: 7-9 weeks</li> </ul>

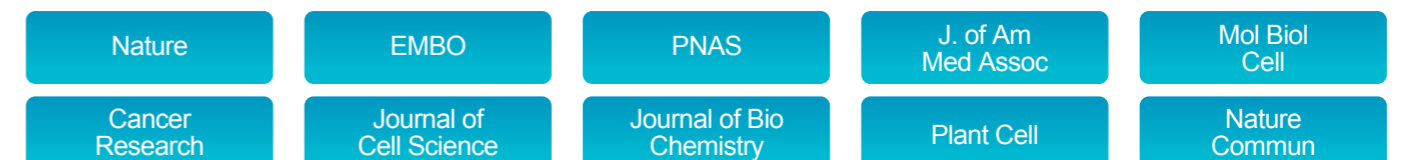
MamPower™ Guaranteed Antibody Package		
Customer Provides	Deliverables	Delivery Time
<ul style="list-style-type: none"> <li>1-5 µg construct or</li> <li>Target protein sequence</li> </ul>	<ul style="list-style-type: none"> <li>50 mg purified mAb guaranteed</li> <li>Optimized gene sequence report</li> <li>Sequence report, construct(s) report, expression evaluation report, SDS-PAGE and peptide mapping QC documents</li> <li>Antibody Certificate of Analysis Report</li> </ul>	<ul style="list-style-type: none"> <li>Total: 8-12 weeks</li> </ul>

### Our Guarantees

For our standard packages, polyclonal antibodies produced in any host will have an ELISA titer of 1:32,000 or better when peptide antigens are designed, synthesized, and conjugated by GenScript, or when the customer provides a minimum of 3 mg of at least 85% pure antigen.

For monoclonal antibodies delivered as a standard package, we provide clients with two clones with positive western blot results from any chosen host, when protein antigens are designed and expressed by GenScript, or when the customer provides a minimum of 2 mg of at least 50% pure protein antigens. In case of failure, clients only need to pay a \$800 set up fee.

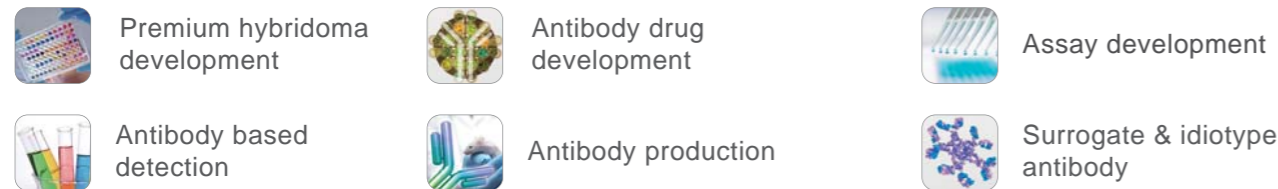
Our Customers have used our antibody products and services to publish in Journals including:



## Pharmaceutical Services

As the saying goes, "Time is Money" and in no other high-paced, competitive industries is this more true than in the pharmaceutical and industrial science market. With today's ever accelerating pace of research, there is no time to waste on producing commercially available antibodies in-house. GenScript offers a full spectrum of customizable antibody production services and packages designed with the pharmaceutical customer in mind. These services are flexible enough to meet any customers' needs and scale up to provide ample material to our clients. All our antibody products are protected by our industry-leading guarantees and are rigorously quality tested to deliver only the highest quality antibodies to you. Join our distinguished clients today and see how outsourcing antibody production can save you time, money, and the frustrations of antibody development, giving you more time to focus on innovation and staying ahead in today's market.

### ★ Application Highlights



### Technology Advantage

- Superdoma™ is an assay to sort top affinity clones from different epitope-binding groups
- NativeSelect™ is a high-throughput ELISA screen which ensures that the selected monoclonal antibodies bind to natural antigens
- HT March™ (HT Mix-and-read cell based homogenous) is a homogenous binding assay which screens antibodies against natural membrane-bound immunogens to prepare binders for further functional assays
- DNA Immunization has been successful against soluble and membrane-bound targets



## Highlighted Services

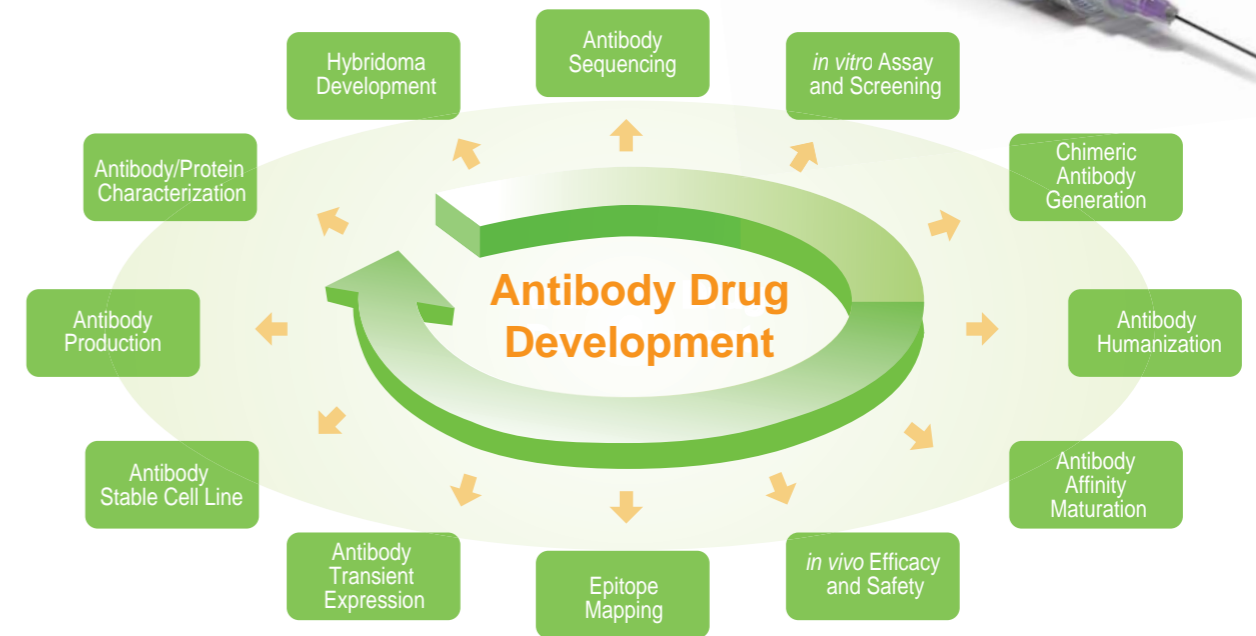
### Custom Antibody Services

A reliable immunological assay demands reliable antibodies. GenScript provides one-stop solutions to match our customers' diverse antibody needs. Clients are able to customize their own packages with choices including phospho-specific and anti-idiotype antibodies with a variety of hybridoma development packages and monoclonal antibody production services. Our custom antibody production services include recombinant protein expression, peptide design and synthesis, polyclonal and monoclonal antibody development, affinity purification, conjugation, fragmentation, and immunoassay development.

#### Assemble your own package: Step-Wise Monoclonal Antibody Services

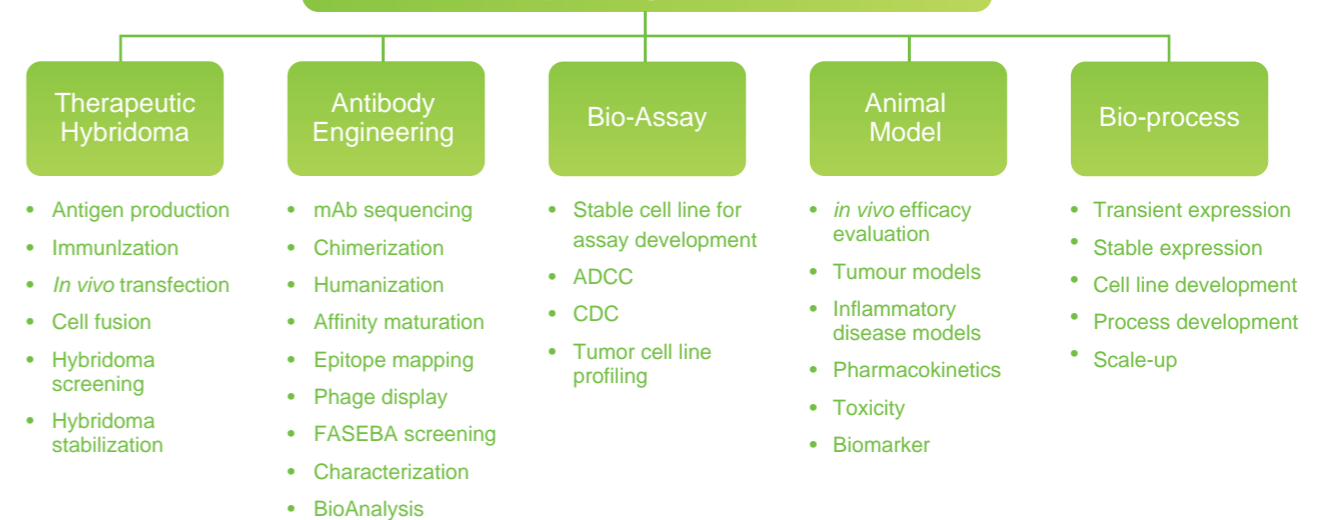
Service	Description
Phase 1	<ul style="list-style-type: none"> <li>• Animal immunization and antiserum evaluation</li> </ul>
Phase 2	<ul style="list-style-type: none"> <li>• Cell fusion, screening, positive clone expansions, and isotyping</li> <li>• Additional subcloning</li> </ul>
Phase 3	<ul style="list-style-type: none"> <li>• Subcloning, screening and expansion</li> </ul>

## Antibody Drug Development



This one-stop service package starts with **Antigen Production** and **Hybridoma Development**, and is followed by **Antibody Sequencing**, which provides the basis for antibody optimization. In addition, **Chimeric Antibody Generation** offers a fast and inexpensive approach for generating therapeutic antibodies, and **Antibody Humanization** provides a more advanced way of reducing immunogenicity of antibodies to human antigens. **Affinity Maturation** gives your antibody desired affinity to achieve its function. **Epitope Mapping** not only provides important information on the nature of your antibody, but also facilitates patent application to protect it. Properties of your antibody and antigen such as affinity and thermostability can be measured through **Antibody/Protein Characterization**. Biological functions and activities of your antibody and antigen can be assessed via **In Vitro Assay and Screening** as well as an **In Vivo Efficacy and Safety** study. At the end, **Antibody Transient Expression**, **Antibody Stable Cell Line** and **Antibody Production** produce sufficient amount of antibodies for your research and development project.

### Antibody Drug Development

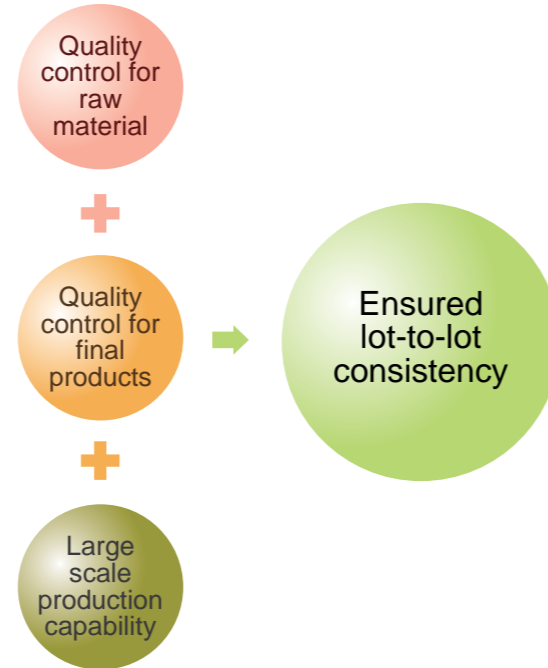


## Custom Antibody Drug Development

Development of antibody drug candidates is a long and costly process. Clients frequently have customized requests to meet their specific project and broader portfolio pipeline goals. To meet these specific requirements, GenScript offers Custom **Antibody Drug Development Service**, in which our highly trained and experienced scientists will provide high-quality deliverables in a timely and cost-effective manner. Our proprietary screening method ensures selection of highly specific antibody drugs.

This service includes Antibody Library and Phage Display:

- Naive or immune antibody libraries
- Synthetic or semi-synthetic antibody libraries
- scFv or Fab antibody libraries
- Selection of binders through phage display screening



## Large-Scale Antibody Production

Our Large-Scale Antibody Production Services shorten your production time and save you money. Our state-of-the-art technologies, new animal facility featuring more than 6,000 rabbits, 12,000 mice and rats, 500 chickens, and 500 goats, combined with our dedication to make your research easy makes us the ideal partner in antibody production. With more than 8 years of antibody production experience, we can offer large-scale **protein purification and monoclonal antibody production up to grams** as well as polyclonal antibody production scale-up options.



- Delivered more than 10,000 high-quality custom antibodies to our customers worldwide with a success rate higher than 98%
- Extensive collection of over 500 phospho-specific antibodies covering 13 of the most important signal transduction pathways
- Extensive panel of Tag antibodies including all major tags
- 2<sup>nd</sup> generation of our anti-His monoclonal antibody is the best in the industry

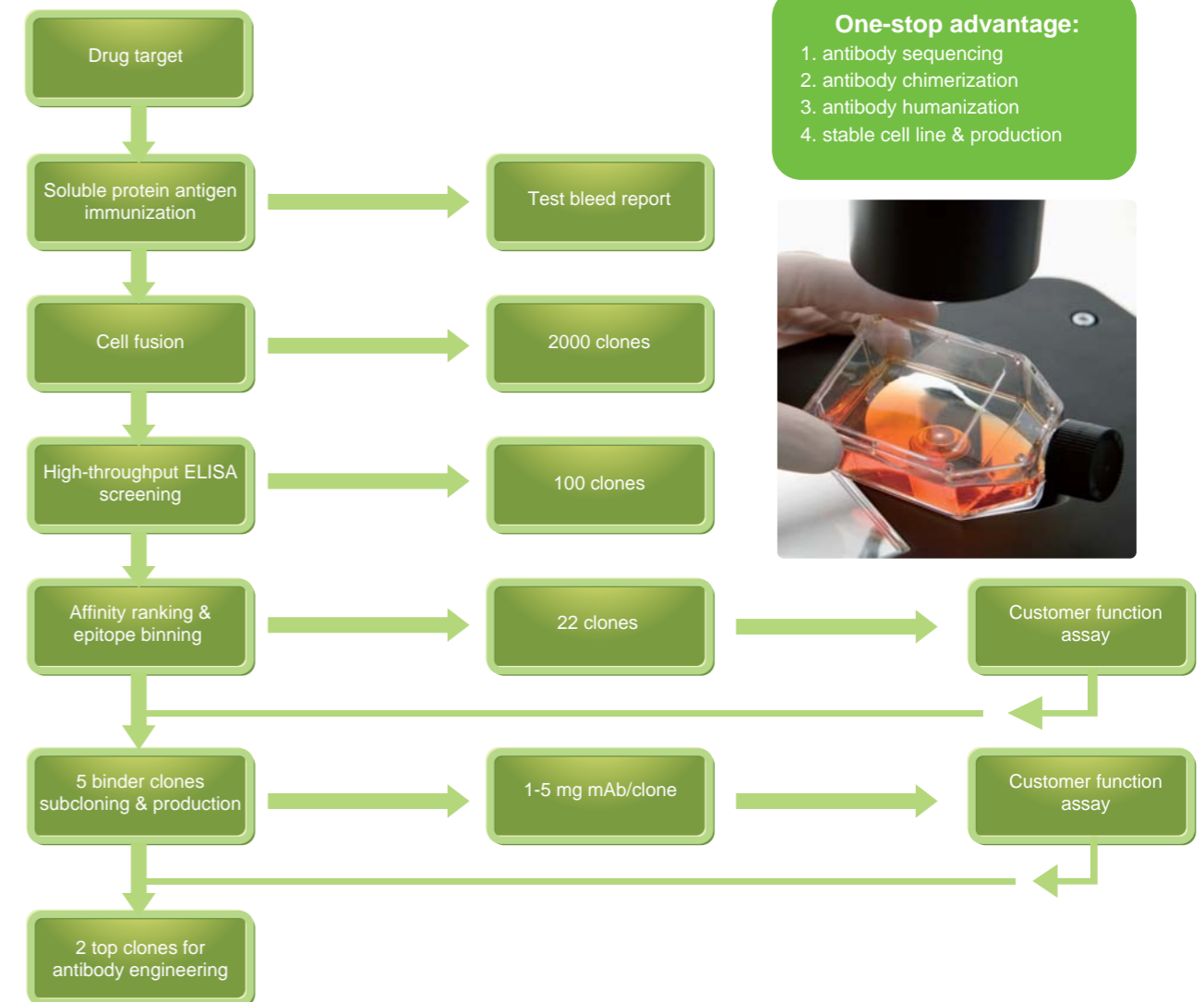
**One-stop advantage:**  
Go from protein or gene sequence to purified antibody with

1. target selection
2. antigen production
3. immunization/ hybridoma
4. antibody engineering
5. antibody maturation
6. antibody production
7. antibody functional assay

## Premium Hybridoma Development

Our latest Premium Hybridoma service generates up to 100 high-quality hybridoma clones for our clients. We aim to facilitate antibody drug research and increase the possibility of finding new potential candidates. The quality and the number of varied hybridomas produced by GenScript cannot be rivaled by any other company.

### Service Flowchart



### Join Our Distinguished Customers

