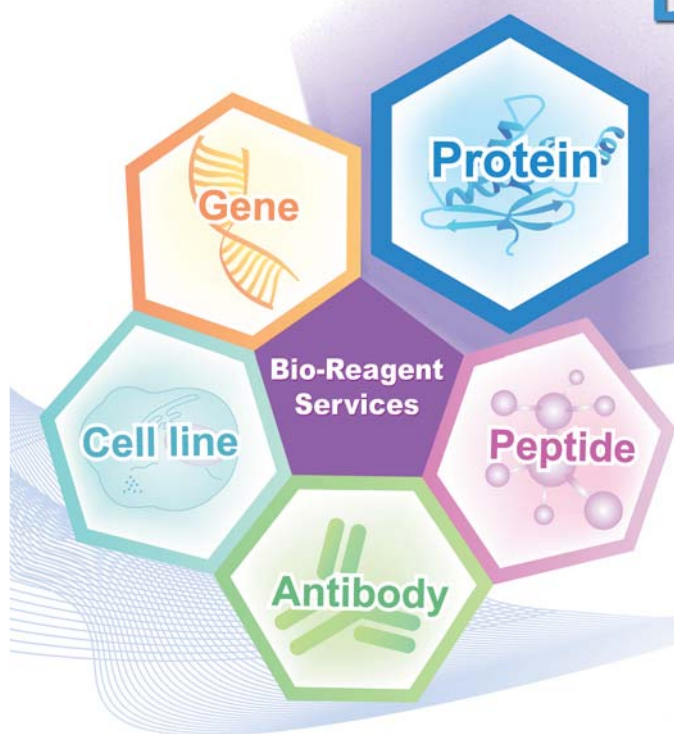


# Bio-Reagent Services



## Protein Expression & Purification Services

**Your Reliable Source for Functional Proteins!**

Bacterial Expression System

Yeast Expression System

Baculovirus Expression System

Mammalian Cell Expression System

Large-scale Protein Production Services



**GenScript**

The Biology CRO

*Your Innovation Partner in Drug Discovery!*



## Mammalian Expression System

As a leading biology Contract Research Organization (CRO), GenScript provides customized solutions for recombinant protein and monoclonal antibody production from mammalian cell culture. We are committed to our customers' successes by timely delivering premium quality services in a most cost effective manner.

GenScript offers expert services for the clients from pharmaceutical and biotechnology industries and research institutes, based on years of experience in mammalian cell culture and proprietary technologies in large-scale protein production.

### I. Transient Protein Expression

- The proprietary 293 and CHO suspension system platform promotes fast production and delivery of recombinant proteins and monoclonal antibodies up to gram level.
- The serum free cell culture condition facilitates the downstream applications for discovery and bio-analytical assays.
- 293TGE™ transient expression system: HEK293TGE cell can be quickly adapted in large-scale suspension culture and protein of interests can be expressed/secreted at high level.

### II. Protein Production from Stable Cell Line

- Stable cell line development for preclinical studies and clinical development
- Expertise in several types of cell lines including hybridoma, CHO, BHK, NS0, and 293 cells
- Serum-free or ADC-free medium development and optimization
- Flexible production capacity ranging from milligrams to 100+ grams

### III. Mammalian Cell Protein Expression Services (Cat. No. SC1259)

### IV. Service Specifications

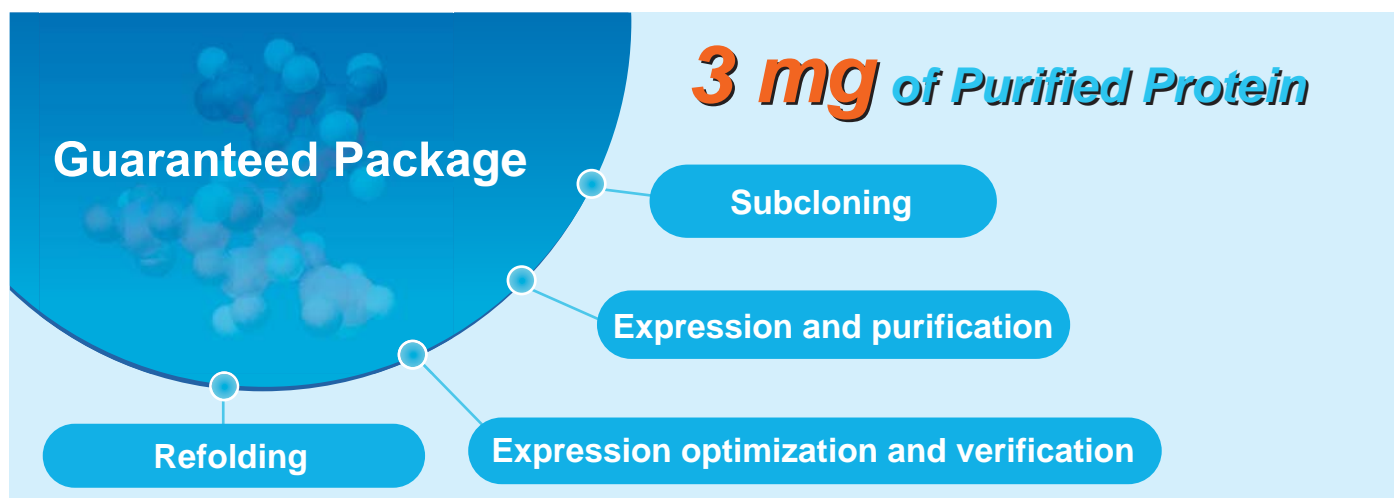
- Generation of recombinant vector construct
- Transient protein expression
- Small-scale protein expression
- Large-scale protein production
- Protein purification and characterization



# Protein Expression & Purification Services

Your Reliable Source for Functional Proteins!

## Bacterial Expression System



### Guaranteed Package (SC1253)

Hard-to-express and hard-to-dissolve proteins are specifically tackled using our proprietary BacPower™ technology and FoldArt™ protein refolding technology.

- Gene subcloning into three expression vectors
- Transformation of three constructs into bacteria
- Expression optimization
- SDS-PAGE and/or Western blot analysis
- One-step affinity purification

### Economic Package (SC1256)

If customers could supply expression protocol of their proteins, we recommend our economic package for bacterial expression, as a more cost-saving solution.

- Gene subcloning into one expression vector
- Transformation of one construct into bacteria
- Protein expression following client's protocol
- SDS-PAGE and/or Western blot analysis
- One-step affinity purification

## Competitive Advantages:

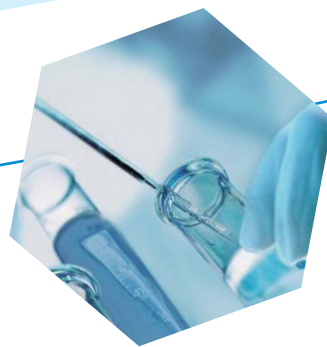
**Streamlined Services:** From gene synthesis (\$0.55/bp) to protein expression, refolding, and purification

**High Quality:** Deliverables at the purity of >95%, and the endotoxin level of lower than 0.01 EU/μg

**Timeline:** 4–6 weeks

**Capacity:** The capacity of our bacterial fermentation service is as high as 1,000 L.

**FoldArt™ Technology:** Over 95% of the inclusion bodies can be solubilized and refolded. We provide refolded protein at purity of 85% or greater.



## YeastHIGH™ Yeast Expression System

GenScript employs a transgenic yeast strain to glycosylate recombinant proteins in the same manner as mammalian cells, making it practical to produce proteins with increased applicability in human therapies. Multiple yeast expression packages are available at competitive prices to better fit your budget.

### YeastHIGH™ Advanced Package (SC1346)

GenScript's proprietary YeastHIGH™ technology enables high protein expression yield and achieve a success rate of over 90% for a wide variety of recombinant proteins.

- Gene subcloning into two expression vectors
- Transformation of two constructs into host strains
- Expression optimization
- SDS-PAGE and/or Western blot analysis
- One-step affinity purification

### Standard Package (SC1257)

GenScript also provides a standard package for yeast expression service, which can be conducted in accordance with customer-supplied protocol.

- Gene subcloning into one expression vector
- Transformation of one construct into host strain
- Protein expression
- SDS-PAGE and/or Western blot analysis
- One-step affinity purification

## BacuVance™ Insect Expression System

GenScript's baculovirus expression service package includes both virus production and large-scale protein production, making it suitable for both pharmaceutical and biotechnology companies as well as academic institutions.

### BacuVance™ Optimization Package (SC1347)

For customers who wish to establish and scale up the protocols that best fit their projects, GenScript recommends them to use BacuVance™ optimization package to explore different expression conditions for their target proteins.

- Gene subcloning into three expression vectors
- Transformation of three constructs into insect cells
- Expression optimization
- SDS-PAGE and/or Western blot analysis
- One-step affinity purification

### Standard Package (SC1258)

- Gene subcloning into one expression vector
- Transformation of one construct into insect cell
- Protein expression
- SDS-PAGE and/or Western blot analysis
- One-step affinity purification





GenScript is committed to be your reliable source for functional protein expression and purification.

GenScript provides high quality protein expression services to deliver high-purity and high-activity proteins in a timely fashion.

## Streamlined Services

GenScript can take your project directly from gene synthesis, to protein expression, stable cell line generation, antibody production, and assay development.

### Multiple Expression Systems

- ▶ Bacteria
- ▶ Yeasts
- ▶ Baculovirus/insect cells
- ▶ Mammalian cells

### Bioprocess Services

- ▶ Transient gene expression and protein production
- ▶ Stable cell line development and protein production
- ▶ Process development and transfer

### Large-scale Production

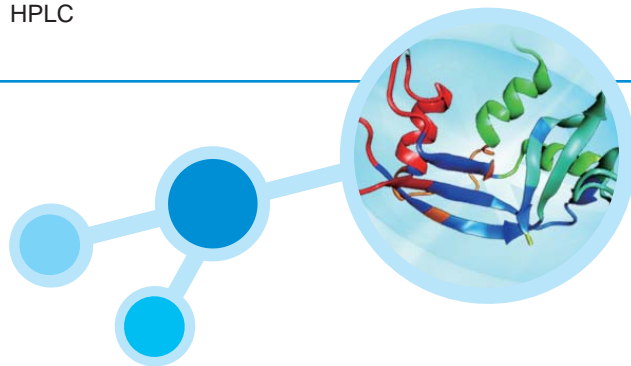
- ▶ Bacterial fermentation up to 1,000 L
- ▶ Yeast fermentation up to 500 L
- ▶ Baculovirus/insect cell production up to grams
- ▶ Mammalian cell production up to grams

### Flexible Purification Methods

- ▶ Affinity column (GST, Ni-NTA, and protein A/G/L resins, etc)
- ▶ Gel filtration
- ▶ Ion exchange
- ▶ Hydrophobic interaction chromatography (HIC)
- ▶ HPLC

### Applications

- ▶ Target validation and characterization
- ▶ Antibody production
- ▶ High-throughput screening (HTS)
- ▶ Structural study and SAR  
(Structure-activity relationships)



***Soluble and Functional Protein at Competitive Prices.***

# Protein Expression & Purification Services

Your Reliable Source for Functional Proteins!

## Protein Expression and Purification Services

### Bacterial Expression System

Cat. No.	Services Name	Timeline
SC1253	Guaranteed Protein Expression Package	4–5 weeks
SC1256	Economic Protein Expression Package	4–6 weeks
SC1027	Bacterial Fermentation Service	Request
SC1191	Protein Refolding Service	Request

### Yeast Expression System

Cat. No.	Services Name	Timeline
SC1346	YeastHIGH™ Advanced Protein Expression Package	7–9 weeks
SC1257	Standard Protein Expression Package	6–9 weeks

### Baculovirus Expression System

Cat. No.	Services Name	Timeline
SC1347	BacuVance™ Optimization Protein Expression Package	7.5–9.5 weeks
SC1258	Standard Protein Expression Package	6.5–8.5 weeks
SC1261	Baculovirus Preparation Service	4–5 weeks

### Mammalian Cell Expression System

Cat. No.	Services Name	Timeline
SC1259	Mammalian Cell Protein Expression Services	Request

**CALL NOW FOR MORE INFORMATION**  
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