

# PakGent<sup>®</sup>

# Transfection Reagent

High transfection efficiency

Low cytotoxicity

Wide compatibility

Easy to operate



## Extensive applications



mRNA transfection



Plasmid transfection



RNAi



Stable transfection



Transient transfection



Co-transfection



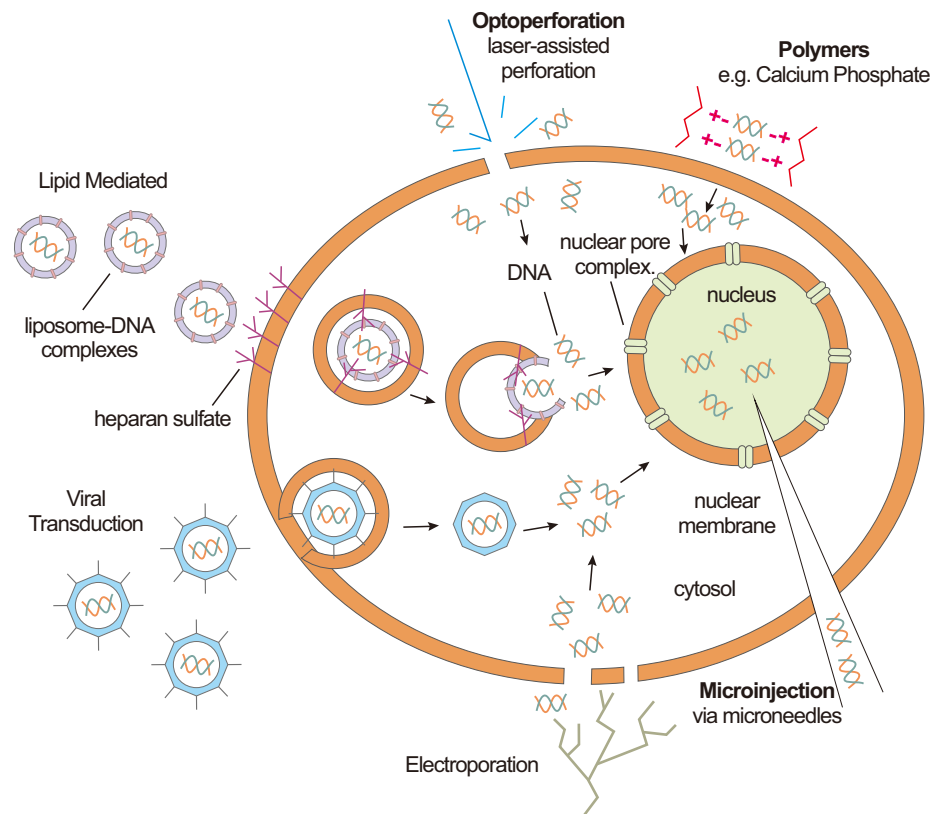
In vivo transfection

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |
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|           | <ul style="list-style-type: none"> <li>• PGbioFect 2000 Transfection Reagent</li> <li>• PGbioFect 3000 Transfection Reagent</li> <li>• PGbioFect 3000plus Transfection Reagent</li> <li>• PGbioFect RNAiMax Transfection Reagent</li> <li>• PGbioFect RNAiPlus Transfection Reagent</li> <li>• PGbioFect 293 Transfection Reagent</li> <li>• PGbioFect Stem Transfection Reagent</li> <li>• PGbioFect IC Transfection Reagent</li> <li>• PGbioFect IC-Lite Transfection Reagent</li> <li>• PGbioFect Oligoplus Transfection Reagent</li> <li>• PGbioFect Exosome Transfection Reagent</li> <li>• PGbioFect mRNA Transfection Reagent</li> <li>• PGbioFect Invivo Transfection Reagent</li> <li>• PGbioFect Cas9 Transfection Reagent</li> <li>• PGbioFect HQ Transfection Reagent</li> </ul> |                |
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## What is transfection?

Broadly defined, transfection is the process of artificially introducing nucleic acids (DNA or RNA) into cells, utilizing means other than viral infection. Such introductions of foreign nucleic acid using various chemical, biological, or physical methods can result in a change of the properties of the cell, allowing the study of gene function and protein expression in the context of the cell.

In transfection, the introduced nucleic acid may exist in the cells transiently, such that it is only expressed for a limited period of time and does not replicate, or it may be stable and integrate into the genome of the recipient, replicating when the host genome replicates.



## The application of transfection

Transfection serves as an indispensable technique in molecular and cellular biology studies.



- Gene Function Studies
- Protein Production & Research
- Drug Discovery & Screening
- Gene & Cell Therapy
- Viral Vector Production
- Vaccine Development
- Stem Cell & Reprogramming
- Disease Modeling
- Non-coding RNA Research
- Signaling Pathway Analysis

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## Transfection method

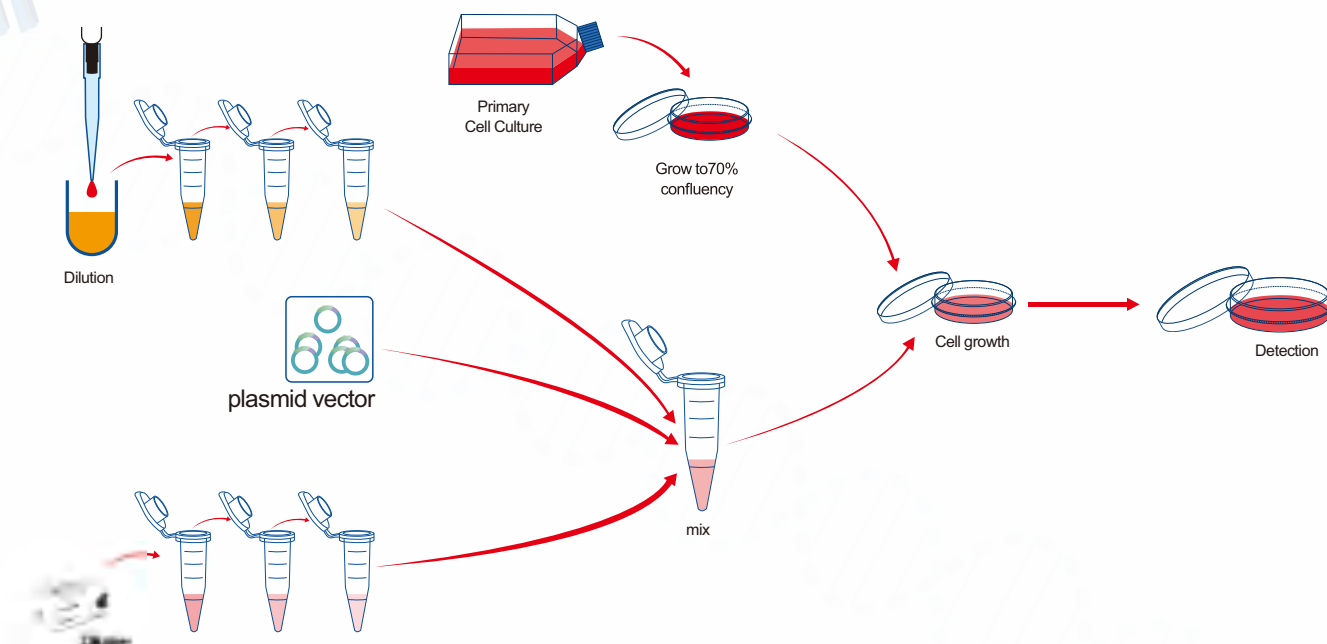
Important factors for selecting the right transfection method.

| Selection criteria                  | Cationic lipid-based<br>Chemical method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Electroporation<br>Physical method                                                                                                                                                                                                                                    | Viral delivery<br>Biological method                                                                                                                                                                                                                                  |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description                         | <ul style="list-style-type: none"> <li>This method enables highly efficient transfection across a wide range of cell lines.</li> <li>It supports high-throughput screening applications.</li> <li>The system effectively delivers nucleic acids of various sizes along with proteins.</li> <li>It accommodates both stable and transient gene expression.</li> <li>Unlike other chemical transfection approaches, this method uniquely enables in vivo DNA/RNA delivery in both animals and humans.</li> <li>Cationic lipid reagents can successfully transfect cell lines that are typically resistant to other transfection methods.</li> </ul> | <ul style="list-style-type: none"> <li>This method is suitable for both transient and stable transfection across all cell types.</li> <li>Once optimal electroporation conditions are established, it enables rapid transfection of large cell quantities.</li> </ul> | <ul style="list-style-type: none"> <li>Viral transfection shows superior in vivo delivery efficiency.</li> <li>It enables sustained transgene expression via genomic integration, making it the preferred gene delivery method for clinical applications.</li> </ul> |
| Efficiency: easy-to-transfect cells | ★★★★★                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ★★★★★                                                                                                                                                                                                                                                                 | ★★★★★                                                                                                                                                                                                                                                                |
| Efficiency: hard-to-transfect cells | ★★★                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ★★★★★                                                                                                                                                                                                                                                                 | ★★★★★                                                                                                                                                                                                                                                                |
| Cell viability                      | ★★★★★                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ★★★                                                                                                                                                                                                                                                                   | ★★★★★                                                                                                                                                                                                                                                                |
| Delivery of large payload (>7 kb)   | ★★★                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ★★★★★                                                                                                                                                                                                                                                                 | ★★★                                                                                                                                                                                                                                                                  |
| High-throughput suitability         | ★★★★★                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ★★★                                                                                                                                                                                                                                                                   | ★★★★★                                                                                                                                                                                                                                                                |
| Ease of use                         | ★★★★★                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ★★★★★                                                                                                                                                                                                                                                                 | ▲                                                                                                                                                                                                                                                                    |
| Biosafety                           | ★★★★★                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ★★★★★                                                                                                                                                                                                                                                                 | ▲                                                                                                                                                                                                                                                                    |
| Cost per reaction                   | ★★★★★                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ★★★                                                                                                                                                                                                                                                                   | ▲                                                                                                                                                                                                                                                                    |

★★★★★ excellent for most applications; ★★★ good for some applications; ▲ our least recommended, but may be appropriate for some application

The above information comes from Thermo

## Transfection experimental procedure



**We provide high-quality transfection reagents and related experimental consumables.**

**PakGent's unwavering commitment to delivering premium laboratory consumables**

- Free of DNase, RNase, endotoxin, PCR inhibitors
- BSL-2 Laboratory Batch Inspection
- ISO Class 7/8 Cleanroom Production

- USP Class VI Compliant Raw Materials
- Fully Automated Production System
- .....

## Recommended consumables guide

| Part No.        | Description                                                                      |
|-----------------|----------------------------------------------------------------------------------|
| UFPT-F-10ET     | Universal fit tip, 0.1 to 20 ul, filter tips, (46mm), rack pack                  |
| UFPT-F-200EB    | Universal fit tip, 1 to 300 ul, filter tips, (60mm), bulk pack                   |
| UFPT-REF-10ET-L | Universal fit tip, 0.1 to 20 ul, low retention, (46mm), refill pack              |
| UFPT-F-1000E-L  | Universal fit tip, 100 to 1,200 ul low retention filter tips, (102mm), rack pack |
| RT200RF-L       | LTS pipette compatible tip, 200 ul low retention filter tip, rack pack           |
| RT1000R         | LTS pipette compatible tip, 1,000 ul, rack pack                                  |
| PT-10000R-E     | Large-volume tip, 10ml, rack pack                                                |



| Part No. | Description                                                                            |
|----------|----------------------------------------------------------------------------------------|
| CT50R-B  | Centrifuge tube, 50 ml, conical bottom, dark blue cap, 15,000 xg, rack pack            |
| CT50BS-B | Centrifuge tube, 50 ml, conical bottom with skirt, dark blue cap, 15,000 xg, bulk pack |
| CT50R-L  | Centrifuge tube, 50 ml, conical bottom, light blue cap, 15,000 xg, rack pack           |
| MCT50    | Micro centrifuge tube, 5 ml, clear, graduated, 25,000 xg                               |
| MCT15    | Micro centrifuge tube, 1.5 ml, clear, graduated, 25,000 xg                             |
| MCT15-L  | Micro centrifuge tube, 1.5 ml, clear, low-retention, graduated, 25,000 xg              |



| Part No.  | Description                                                     |
|-----------|-----------------------------------------------------------------|
| CL-F075P  | Cell culture flask, 75cm <sup>2</sup> , plug cap                |
| CL-FT175V | Cell culture flask, 175cm <sup>2</sup> , vent cap, TC treated   |
| CL-D060   | Cell culture dish, 60*15mm                                      |
| CL-DT100  | Cell culture dish, 100*20mm, TC treated                         |
| CL-P024   | Cell culture plate, 24 well, flat bottom                        |
| CL-PT096  | Cell culture plate, 96 well, flat bottom, TC treated            |
| CL-MC10   | Cell factory, 335 x 205 x 189 mm, 10 Layer, 6316cm <sup>2</sup> |

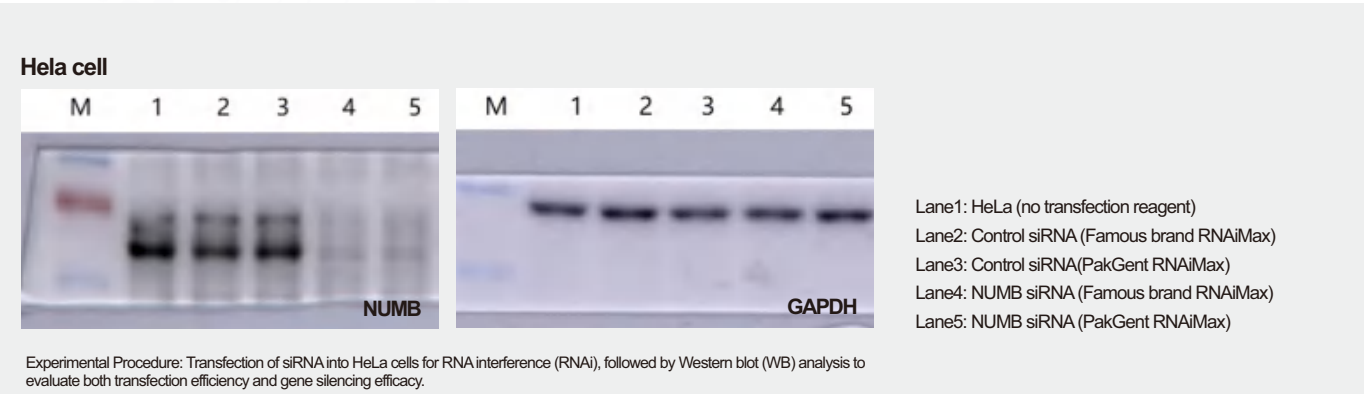
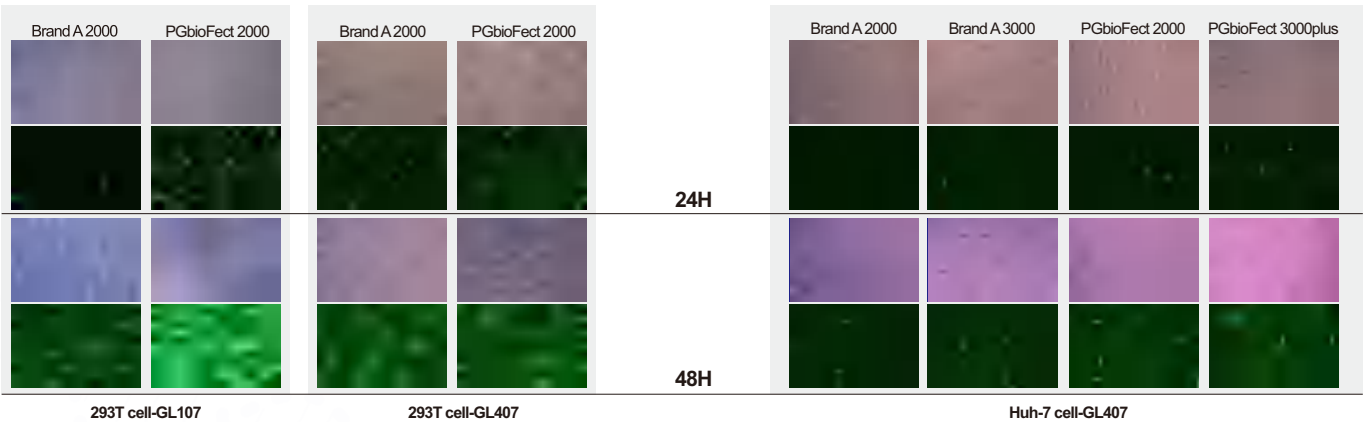


| Part No.     | Description                                                                        |
|--------------|------------------------------------------------------------------------------------|
| STSS-509CN   | Screw cap tube, 0.5 ml, self standing, with O-ring, clear tube with clear cap      |
| STSS-510CN-N | Screw cap tube, 1.5 ml, self standing, without O-ring, clear tube with clear cap   |
| STSS-512IN   | Cryogenic vial, 2 ml, internal thread type, self-standing bottom                   |
| STSS-513EX   | Cryogenic vial, 5 ml, internal thread type, self-standing bottom                   |
| STSS-514EX   | Cryogenic vial, 0.5 ml, external thread type, self-standing bottom, bottom barcode |
| STSS-BOX5213 | Cryogenic and Freezer Box, 2in, 81-well, assorted colors, digital organization     |



View/download our product catalog

## Transfection reagent experimental validation



PakGent's PGbioFect RNAiMax transfection reagent demonstrates equivalent transfection efficiency and gene knockdown performance to leading commercial brands, while maintaining identical experimental protocols for seamless substitution in RNAi experiments.

## PakGent transfection reagents

Engineered for high-efficiency nucleic acid delivery while maintaining minimal cellular toxicity, this transfection reagent enables robust gene expression across diverse cell types.



### ► PGbioFect 2000 Transfection Reagent

- ♦ **Wide Applicability:** A versatile transfection reagent suitable for DNA, RNA, and RNAi delivery, compatible with hundreds of cell types (both adherent and suspension).
- ♦ **Streamlined Protocol:** Maintains high transfection efficiency in serum-containing media without medium exchange, streamlining workflow.
- ♦ **Superior Cost-Performance:** Delivers high transfection efficiency at minimal reagent consumption - a single 1.5 mL package enables up to 1,500 transfections in 24-well plates.

| Product Name                        | Product Number | Specification | Storage |
|-------------------------------------|----------------|---------------|---------|
| PGbioFect 2000 Transfection Reagent | TR-2000-075    | 0.75 mL       | 2-8°C   |
|                                     | TR-2000-150    | 1.5 mL        | 2-8°C   |
|                                     | TR-2000-1500   | 15 mL         | 2-8°C   |



### ► PGbioFect 3000 Transfection Reagent

- ♦ **Wide Applicability:** A versatile reagent for efficient DNA/RNA/RNAi delivery across hundreds of cell types, including hard-to-transfect cells (e.g., HEK293, HeLa, HL480) using advanced nanoparticle technology.
- ♦ **Streamlined Protocol:** Maintains high transfection efficiency in serum-containing media without medium exchange, streamlining workflow.
- ♦ **Superior Cost-Performance:** Delivers high transfection efficiency at minimal reagent consumption - a single 1.5 mL package enables up to 1,500 transfections in 24-well plates.

| Product Name                        | Product Number | Specification | Storage |
|-------------------------------------|----------------|---------------|---------|
| PGbioFect 3000 Transfection Reagent | TR-3000-075    | 0.75 mL       | 2-8°C   |
|                                     | TR-3000-150    | 1.5 mL        | 2-8°C   |
|                                     | TR-3000-1500   | 15 mL         | 2-8°C   |



### ► PGbioFect 3000plus Transfection Reagent

- ♦ **Wide Applicability:** A broad-spectrum transfection reagent optimized for high-efficiency DNA/RNA/RNAi delivery across hundreds of cell lines, including difficult-to-transfect cells (e.g., HEK293, HeLa, HL480) through advanced nanoparticle technology.
- ♦ **Enhanced Performance Formula:** Incorporates novel T3000 transfection booster for significantly improved efficiency compared to conventional reagents like PGbioFect 3000.
- ♦ **Streamlined Protocol:** Maintains high transfection efficiency in serum-containing media without medium exchange, streamlining workflow.

| Product Name                            | Product Number | Specification | Storage |
|-----------------------------------------|----------------|---------------|---------|
| PGbioFect 3000plus Transfection Reagent | TR-3000P-075   | 0.75 mL       | 2-8°C   |
|                                         | TR-3000P-150   | 1.5 mL        | 2-8°C   |
|                                         | TR-3000P-1500  | 15 mL         | 2-8°C   |



### ► PGbioFect RNAiMax Transfection Reagent

- **High Efficiency RNAi Delivery:** PGbioFect RNAiMax is a proprietary RNAi-optimized nanoformulation that achieves superior transfection efficiency with low siRNA/miRNA concentrations, enabling effective gene knockdown with minimal off-target effects.
- **Broad Compatibility & Low Toxicity:** The reagent supports hundreds of cell types with minimal cytotoxicity, providing a versatile and cell-friendly solution for gene silencing experiments.
- **Simplified Protocol:** Features a simple "mix-add-incubate" workflow that combines rapid operation with high transfection efficiency, making it ideal for siRNA-mediated gene knockout studies.

| Product Name                           | Product Number | Specification | Storage |
|----------------------------------------|----------------|---------------|---------|
| PGbioFect RNAiMax Transfection Reagent | TR-RNAM-075    | 0.75 mL       | 2-8°C   |
|                                        | TR-RNAM-150    | 1.5 mL        | 2-8°C   |
|                                        | TR-RNAM-1500   | 15 mL         | 2-8°C   |



### ► PGbioFect RNAiPlus Transfection Reagent

- **Enhanced RNAi Transfection Performance:** Building upon PGbioFect RNAiMax, our new PGbioFect RNAiPlus system delivers superior transfection efficiency through an optimized RNAi-specific nanoformulation (including RNAiPlus reagent and RNAiER enhancer), enabling effective gene knockdown with reduced siRNA/miRNA concentrations and minimal off-target effects.
- **Versatile & Cell-Friendly Solution:** The reagent demonstrates broad compatibility across hundreds of cell types while maintaining low cytotoxicity, providing a universal and gentle transfection method for diverse gene silencing applications (siRNA/miRNA).
- **Simplified High-Efficiency Workflow:** Features an intuitive "mix-add-incubate" protocol that combines rapid operation with exceptional transfection efficiency, making PGbioFect RNAiPlus the optimal choice for demanding RNAi experiments.

| Product Name                            | Product Number | Specification | Storage |
|-----------------------------------------|----------------|---------------|---------|
| PGbioFect RNAiPlus Transfection Reagent | TR-RNAP-075    | 0.75 mL       | 2-8°C   |
|                                         | TR-RNAP-150    | 1.5 mL        | 2-8°C   |
|                                         | TR-RNAP-1500   | 15 mL         | 2-8°C   |



### ► PGbioFect 293 Transfection Reagent

- **Optimized for 293 Cells:** PGbioFect 293 is a specialized nano-formulated reagent delivering superior DNA transfection efficiency in both suspension (e.g., 293-F) and adherent 293 cell lines.
- **Simplified Protocol:** Enables serum-compatible transfection without medium changes, complex removal, or post-transfection supplementation, ensuring maximum cell viability.

| Product Name                       | Product Number | Specification | Storage |
|------------------------------------|----------------|---------------|---------|
| PGbioFect 293 Transfection Reagent | TR-293-075     | 0.75 mL       | 2-8°C   |
|                                    | TR-293-150     | 1.5 mL        | 2-8°C   |
|                                    | TR-293-1500    | 15 mL         | 2-8°C   |



### ► PGbioFect Stem Transfection Reagent

- ♦ **High-Efficiency Stem Cell Transfection:** PGbioFect Stem delivers >85% efficiency in PSCs/NSCs and >60% in MSCs for DNA, RNA and Cas9 RNP co-transfection while maintaining cell viability and preventing differentiation.
- ♦ **CRISPR-Optimized & Gentle:** Specially designed for stem cell gene editing, it efficiently delivers large CRISPR plasmids, Cas9 mRNA/sgRNA, and protein complexes without disrupting cell proliferation or pluripotency.
- ♦ **Superior to Electroporation:** Achieves higher transfection efficiency with lower toxicity than physical methods, works in both adherent/suspension cultures, and requires minimal nucleic acid input.
- ♦ **Feeder-Free Compatible:** Streamlines workflow with serum-adapted, no-change protocols compatible with various media systems, including feeder-free cultures.

| Product Name                        | Product Number | Specification | Storage |
|-------------------------------------|----------------|---------------|---------|
| PGbioFect Stem Transfection Reagent | TR-STEM-075    | 0.75 mL       | 2-8°C   |
|                                     | TR-STEM-150    | 1.5 mL        | 2-8°C   |
|                                     | TR-STEM-1500   | 15 mL         | 2-8°C   |



### ► PGbioFect IC Transfection Reagent

- ♦ **Specialized Insect Cell Transfection:** PGbioFect IC is a nano-formulated reagent optimized for high-efficiency DNA transfection in both adherent and suspension insect cell cultures, enabling reliable recombinant baculovirus production with minimal nucleic acid requirements.
- ♦ **Industrial-Grade Performance:** This low-toxicity reagent simplifies baculovirus production by generating high-titer P0 virus directly in suspension culture without medium exchange, while offering superior efficiency and scalability compared to electroporation.
- ♦ **Serum-Free Adaptability:** Delivers excellent transfection performance in serum-free media systems for both research and industrial-scale applications.

| Product Name                      | Product Number | Specification | Storage |
|-----------------------------------|----------------|---------------|---------|
| PGbioFect IC Transfection Reagent | TR-IC-075      | 0.75 mL       | 2-8°C   |
|                                   | TR-IC-150      | 1.5 mL        | 2-8°C   |
|                                   | TR-IC-1500     | 15 mL         | 2-8°C   |



### ► PGbioFect IC-Lite Transfection Reagent

- ♦ **Optimized Insect Cell Transfection:** PGbioFect IC-Lite is a specialized nano-formulated reagent designed for high-efficiency DNA delivery in both adherent and suspension insect cell cultures under serum-free conditions.
- ♦ **Superior Alternative to Electroporation:** This low-toxicity reagent achieves high transfection efficiency with minimal nucleic acid input, outperforming conventional electroporation methods.
- ♦ **Versatile Performance:** Delivers excellent transfection results across various insect cell culture systems while maintaining simple and flexible protocols.

| Product Name                           | Product Number | Specification | Storage |
|----------------------------------------|----------------|---------------|---------|
| PGbioFect IC-Lite Transfection Reagent | TR-ICT-075     | 0.75 mL       | 2-8°C   |
|                                        | TR-ICT-150     | 1.5 mL        | 2-8°C   |
|                                        | TR-ICT-1500    | 15 mL         | 2-8°C   |



### ► PGbioFect OligoPlus Transfection Reagent

- ♦ **Specialized Oligonucleotide Transfection:** PGbioFect OligoPlus is a proprietary nanoformulated transfection reagent optimized for highly efficient and non-toxic delivery of DNA oligonucleotides into eukaryotic cells, featuring broad cell line compatibility (including CHO, HEK-293, NIH 3T3, and HeLa) through a simple mix-and-incubate protocol requiring only nanomolar nucleic acid inputs.
- ♦ **siRNA Application with Alternative Recommendations:** While capable of siRNA delivery, optimal RNA interference results are best achieved using our dedicated siRNA transfection reagents, PGbioFect RNAiMax or RNAiPlus, which are specifically engineered for superior siRNA performance.

| Product Name                             | Product Number | Specification | Storage |
|------------------------------------------|----------------|---------------|---------|
| PGbioFect OligoPlus Transfection Reagent | TR-OL-100      | 1 mL          | 2-8°C   |



### ► PGbioFect Exosome Transfection Reagent

- ♦ **Optimized Exosome Transfection Efficiency:** PGbioFect Exosome is a proprietary RNAi-optimized nanoformulation enabling high-efficiency siRNA/miRNA delivery into diverse exosomes with minimal nucleic acid input and low off-target effects.
- ♦ **Universal Exosome Solution:** This exosome-specific transfection reagent offers a streamlined mix-incubate protocol for broad exosome compatibility, positioning it as a rare and superior choice for exosome-based research applications.

| Product Name                           | Product Number | Specification | Storage |
|----------------------------------------|----------------|---------------|---------|
| PGbioFect Exosome Transfection Reagent | TR-EXO-030     | 0.3 mL        | 2-8°C   |
|                                        | TR-EXO-100     | 1 mL          | 2-8°C   |
|                                        | TR-EXO-1500    | 15 mL         | 2-8°C   |



### ► PGbioFect mRNA Transfection Reagent

- ♦ **Superior mRNA Delivery Performance:** PGbioFect mRNA is a next-generation nanoparticle transfection reagent engineered for high-efficiency mRNA delivery in neurons and challenging primary cells, enabling robust protein expression without genomic integration risks.
- ♦ **Enhanced CRISPR Editing Efficiency:** The reagent significantly boosts mRNA-based CRISPR applications by achieving 10-fold higher knockout efficiency through optimized mRNA transfection, streamlining genetic modification workflows.
- ♦ **Broad Cellular Compatibility:** Demonstrating 2x higher transfection efficacy than competing products across hundreds of cell types, this novel formulation eliminates the need for electroporation or viral methods while maintaining cell cycle-independent activity.

| Product Name                        | Product Number | Specification | Storage |
|-------------------------------------|----------------|---------------|---------|
| PGbioFect mRNA Transfection Reagent | TR-MRNA-075    | 0.75 mL       | 2-8°C   |
|                                     | TR-MRNA-150    | 1.5 mL        | 2-8°C   |
|                                     | TR-MRNA-1500   | 15 mL         | 2-8°C   |



### ► PGbioFect Invivo Transfection Reagent

- ♦ **Advanced In Vivo Nucleic Acid Delivery System:** PGbioFect mRNA-Invivo is a cutting-edge nanoparticle-based transfection reagent optimized for high-efficiency delivery of mRNA/siRNA/miRNA in mice through multiple administration routes, demonstrating superior transfection efficiency (2× higher than competitors) in hard-to-transfect organs (liver/lung/spleen) with rapid protein expression, low toxicity, and excellent biocompatibility.
- ♦ **Comprehensive Transfection Solutions for Therapeutic Development:** Our specialized product line includes tissue-targeted transfection reagents (liver/lung/spleen-specific) and versatile in vivo delivery systems, offering researchers high-efficiency, low-toxicity solutions for mRNA therapeutics, vaccine development, and cell therapy applications.

| Product Name                          | Product Number | Specification | Storage |
|---------------------------------------|----------------|---------------|---------|
| PGbioFect Invivo Transfection Reagent | TR-INVIVO-050  | 0.5 mL        | 2-8°C   |
|                                       | TR-INVIVO-150  | 1.5 mL        | 2-8°C   |
|                                       | TR-INVIVO-1500 | 15 mL         | 2-8°C   |



### ► PGbioFect Cas9 Transfection Reagent

- ♦ **High-Efficiency CRISPR-Cas9 Delivery System:** PGbioFect Cas9 Transfection Reagent is an optimized nanoparticle formulation enabling superior gene-editing efficiency with validated high knockout rates across multiple cell types, while maintaining low cytotoxicity and minimal cell consumption compared to electroporation methods.
- ♦ **Versatile Genome Editing Solution:** This innovative reagent delivers functional Cas9 protein directly to primary and stem cells, eliminating transcription/translation requirements and genomic integration risks while achieving cell cycle-independent editing with broad experimental applicability and enhanced modification success rates.

| Product Name                        | Product Number | Specification | Storage |
|-------------------------------------|----------------|---------------|---------|
| PGbioFect Cas9 Transfection Reagent | TR-CAS9-075    | 0.75 mL       | 2-8°C   |
|                                     | TR-CAS9-150    | 1.5 mL        | 2-8°C   |
|                                     | TR-CAS9-1500   | 15 mL         | 2-8°C   |



### ► PGbioFect HQ Transfection Reagent

- ♦ **High-Performance Plasmid Delivery:** PGbioFect HQ is an animal-free, optimized transfection reagent that achieves superior transfection efficiency and cell viability across diverse cell types, including challenging primary cells (neurons), macrophages, and sensitive cell lines, while outperforming conventional reagents in protein expression.
- ♦ **User-Friendly Versatility:** This reagent combines exceptional transfection efficiency with gentle cell treatment and a simplified workflow (no medium changes required), making it an ideal universal solution for both routine and demanding genetic engineering applications.

| Product Name                      | Product Number | Specification | Storage |
|-----------------------------------|----------------|---------------|---------|
| PGbioFect HQ Transfection Reagent | TR-HQ-075      | 0.75 mL       | 2-8°C   |
|                                   | TR-HQ-150      | 1.5 mL        | 2-8°C   |
|                                   | TR-HQ-1500     | 15 mL         | 2-8°C   |

## Product selection guide

Transfection products are available for DNA, siRNA, mRNA, and protein delivery, PakGent offering a range of options to best suit your transfection experiment.

### Continuing cell lines

| Reagent            | DNA | mRNA | RNAi | Co-transfection | CRISPR-Cas9 | Cell Type                                                                                          | Adherent or Suspension |
|--------------------|-----|------|------|-----------------|-------------|----------------------------------------------------------------------------------------------------|------------------------|
| PGbioFect 2000     | A1  | A2   | A3   | A4              |             | Common and easily transfected cell types                                                           | Adherent & Suspension  |
| PGbioFect 3000     | A1  | A2   | A3   | A4              |             | From easy (HeLa) to hard-to-transfect (phagocytes)                                                 | Adherent               |
| PGbioFect 3000Plus | A1  | A2   | A3   | A4              |             |                                                                                                    |                        |
| PGbioFect HQ       | A1  | A2   | A3   | A4              |             | CHO cells and some primary fibroblasts, epithelial cells, and neuronal cells (MEF, HMEC, EI cells) | Adherent               |
| PGbioFect RNAiMax  |     | A2   | A3   |                 |             | Established cell lines, hard-to-transfect cells, primary cells, stem cells                         | Adherent               |
| PGbioFect RNAiPlus |     | A2   | A3   |                 |             |                                                                                                    |                        |
| PGbioFect mRNA     |     | A2   |      |                 |             | Neuronal cells, primary cells                                                                      | Adherent               |
| PGbioFect Cas9     |     |      |      |                 | A5          | Tested in 20+ cell types, including iPSCs, mESCs, N2A, CHO, A549, HCT116, HeLa, HEK293, and others | Adherent               |
| Electroporation    | A1  | A2   | A3   | A4              | A5          |                                                                                                    | Suspension             |
| PGbioFect Invivo   |     | A2   | A3   |                 |             | In vivo delivery to liver via tail vein injection                                                  |                        |

### Primary Cells

| Reagent            | DNA | mRNA | RNAi | Co-transfection | CRISPR-Cas9 | Cell Type                                                                                          | Adherent or Suspension |
|--------------------|-----|------|------|-----------------|-------------|----------------------------------------------------------------------------------------------------|------------------------|
| Electroporation    | A1  | A2   | A3   | A4              | A5          | Tested in 140+ cell lines, including hard-to-transfect primary cells and stem cells                | Suspension             |
| PGbioFect 3000     | A1  | A2   | A3   | A4              |             | From easy (HeLa) to hard-to-transfect (cancer cells)                                               | Adherent               |
| PGbioFect 3000Plus | A1  | A2   | A3   | A4              |             |                                                                                                    |                        |
| PGbioFect Stem     | A1  | A2   | A3   | A4              | A5          | Stem cells (excluding HSCs)                                                                        | Suspension or Adherent |
| PGbioFect HQ       | A1  | A2   | A3   | A4              |             | CHO cells and some primary fibroblasts, epithelial cells, and neuronal cells (MEF, HEC, E18 cells) | Adherent               |
| PGbioFect Cas9     |     |      |      |                 | A5          | Tested in 20+ cell types, including iPSCs, mESCs, N2A, CHO, A549, HCT116, HeLa, HEK293, and others | Adherent               |
| PGbioFect RNAiMax  |     | A2   | A3   |                 |             |                                                                                                    |                        |
| PGbioFect RNAiPlus |     | A2   | A3   |                 |             | Established cell lines, hard-to-transfect cells, primary cells, stem cells                         | Adherent               |
| PGbioFect mRNA     |     | A2   |      |                 |             | Neuronal cells, primary cells                                                                      | Adherent               |

|           |                                              |           |                                  |           |                                               |
|-----------|----------------------------------------------|-----------|----------------------------------|-----------|-----------------------------------------------|
| <b>A1</b> | DNA for protein expression, shRNA, and miRNA | <b>A2</b> | mRNA for protein expression      | <b>A3</b> | Non-coding RNA for gene expression inhibition |
| <b>A4</b> | Co-delivery of RNA vectors and siRNA         | <b>A5</b> | CRISPR-Cas9 for protein delivery |           |                                               |



**YOUR ONE-STOP PROCUREMENT SOLUTION**  
FOR COMPREHENSIVE LABORATORY SUPPLIES

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