

jetPRIME®

Versatile DNA | siRNA Transfection Reagent



Product Information

jetPRIME® is a polyvalent transfection reagent that ensures effective and reproducible DNA and siRNA transfection in several adherent cell lines. This versatile reagent is also perfect for co-transfection of DNA and siRNA. Transfection with jetPRIME® requires only low amounts of nucleic acid, hence resulting in very low cytotoxicity.

jetPRIME® is suited for different applications, such as plasmid transfection, gene silencing, co-transfection of different nucleic acids, and CRISPR/Cas9-mediated gene knock-out.

Benefits

- Versatile: One reagent for DNA and siRNA transfection
- Timesaving: Easy-to-use transfection reagent
- Gentle on cells: Low cytotoxicity
- Cost-effective: Requires less DNA and less reagent for efficient transfection

Introduction

Relevant Applications

- Plasmid transfection
- Genome editing
- siRNA transfection
- Co-delivery of different nucleic acids

Relevant Process Steps

- Upstream Process
- Transfection

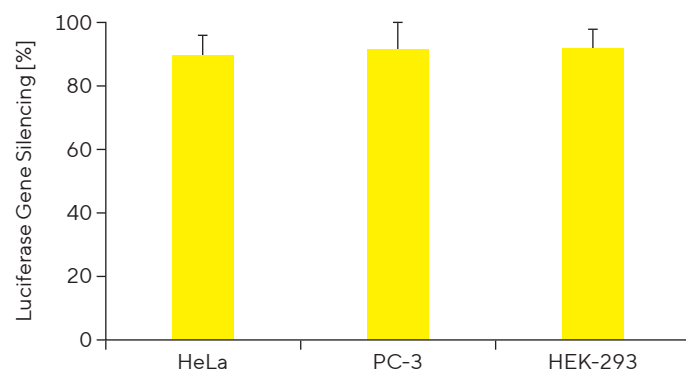
Technical Specifications

Molecule delivered	DNA, siRNA, DNA & siRNA (co-transfection)
Cell Types	Adherent cells
Number of transfections	1.5 mL of jetPRIME® transfection reagent is sufficient to perform up to 1500 transfections in 24-well plates or 375 transfections in 6-well plates
Storage	Store jetPRIME® at 5 °C ± 3°C. Expiry date is indicated in the certificate of analysis and on the product
Provided with	jetPRIME® buffer

Capabilities

- One Reagent for DNA and | or siRNA Transfection
jetPRIME® is a polyvalent transfection reagent well suited for DNA and siRNA delivery. jetPRIME® is also ideal for DNA | siRNA co-transfection, ensuring high DNA transfection and efficient gene silencing in a variety of cell lines with exceptionally low toxicity.

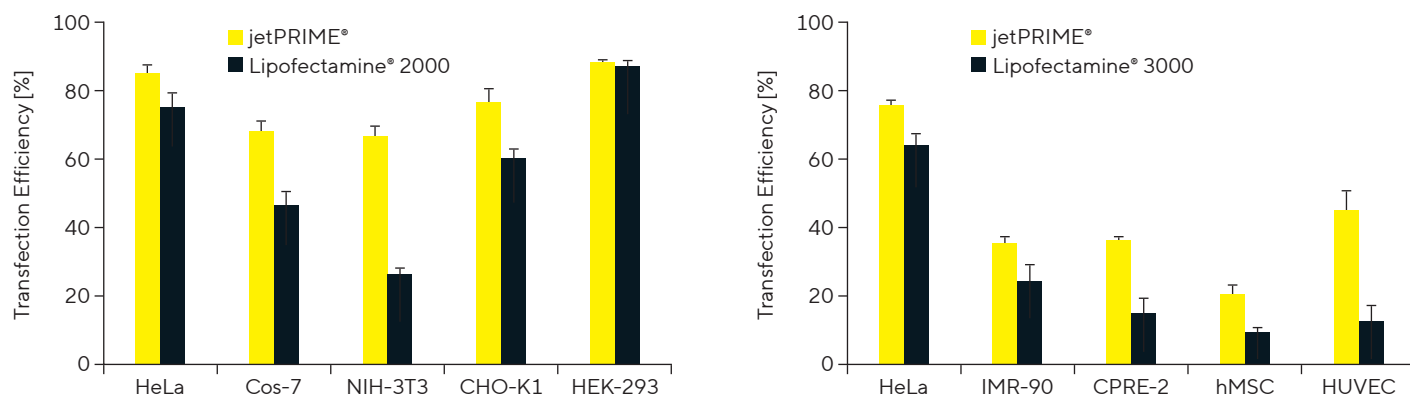
Figure 1: *Exogenous Luciferase Silencing in Several Cell Lines After DNA and siRNA Cotransfection Using jetPRIME®*



Note. Experiments were performed with 400 ng p4CMV-Luc and 10 nM of luciferase siRNA per well in 6-well plates.

- High Transfection Efficiency in a Wide Variety of Adherent Cell Lines
jetPRIME® is an easy-to-use transfection reagent for day-to-day experiments that leads to efficient and reliable scientific results. It leads to outstanding high percentage of transfected adherent cell lines of various origins as well as primary cells

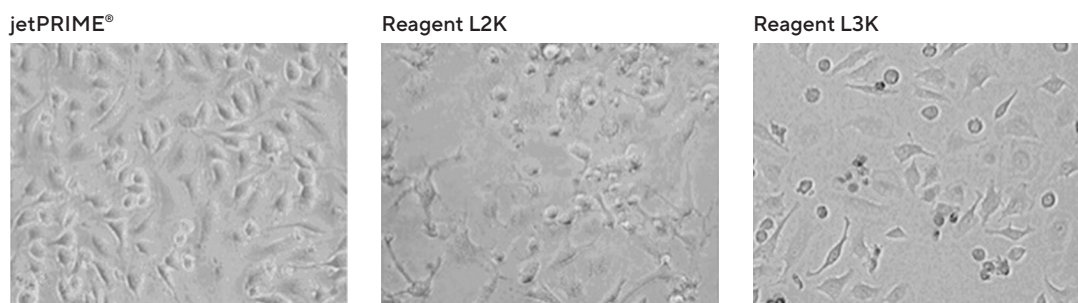
Figure 2: Comparative Transfection Efficiency of jetPRIME® Versus its Main Competitors



Note. Transfection efficiency was assessed by FACS analysis in various cell lines 24 hours after transfection in 24-well plates. Conditions were used according to the manufacturer's recommendation.

- Extremely Gentle on Cells
Transfection with jetPRIME® requires low amounts of reagent and nucleic acids, leading to increased cell viability while keeping high transfection efficiency.

Figure 3: Cells Transfected With jetPRIME® are Healthy, While Major Cytotoxicity is Observed with Competitors: Cell Viability 24 Hours After Transfection



Note. Phase contrast microscopy HeLa Cells 24 hours after transfections performed according to the manufacturer's recommendations for each reagent.

- Requires Less DNA and Less Reagent
Transfection with jetPRIME® requires a small amount of reagent and DNA | siRNA, making its use very cost-effective.

Table 1: Conditions for Transfection Given per 6-Well Plates According to Manufacturer's Recommendations

Reagent	Volume of reagent per well [µL]	Amount of DNA per well [µg]	Number of transfection per 1.5 mL vial
jetPRIME®	2 - 4	1 - 2	375 - 750
Lipofectamine® 2000	5 - 12.5	2.5	120 - 300
Lipofectamine® 3000	3.75 - 7.5	2.5	200 - 400

Ordering Information

Item	Description	Package Volume Quantity Size	Order Number
jetPRIME® 0.1 mL	Versatile DNA siRNA transfection reagent provided with associated Buffer	0.1 mL Vial (+ 5 mL Buffer Bottle)	101000027
jetPRIME® 0.75 mL		0.75 mL Vial (+ 60 mL Buffer Bottle)	101000015
jetPRIME® 1.5 mL		1.5 mL Vial (+ 2x60 mL Buffer Bottle)	101000046
jetPRIME® 5x1.5 mL		5x1.5 mL Vial (+ 10x60 mL Buffer Bottle)	101000001
jetPRIME® buffer 60 mL	jetPRIME® associated Buffer	60 mL Bottle	201000003

Bulk quantities are available upon request.

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