

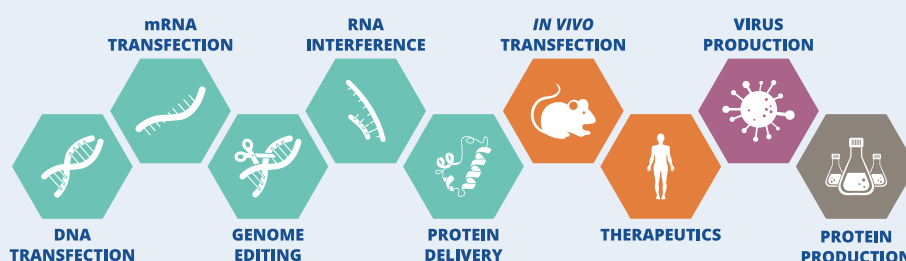


# LIFE SCIENCE RESEARCH & NON VIRAL *IN VIVO* TRANSFECTION REAGENTS

## 2020 • EDITION

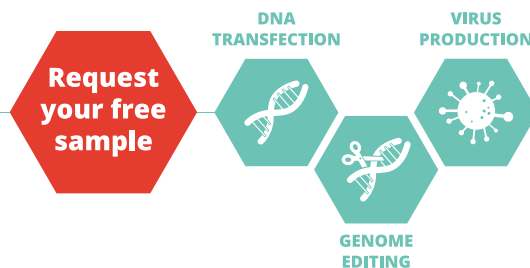
Polyplus-transfection® is a biotechnology company that develops innovative solutions for the delivery of nucleic acids in life science research, *in vivo* transfection, biologics manufacturing and cell & gene therapies.

Because quality is our top priority, Polyplus-transfection® is ISO 9001-certified since 2002.



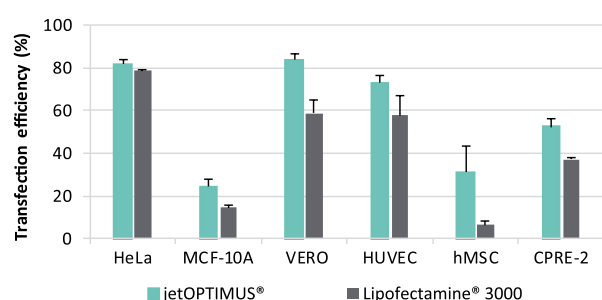
# DNA transfection reagent: jetOPTIMUS®

Reach higher gene expression in mammalian cells!

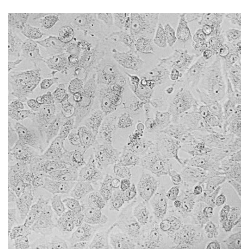


- Highly efficient:**  
Reach maximal gene expression in hard-to-transfect cells
- Cost-effective:**  
Use minimum reagent volume and DNA quantity
- Biologically relevant:**  
Keep an excellent cell viability & morphology
- Time-saving:**  
Transfect with an optimized ready-to-use protocol

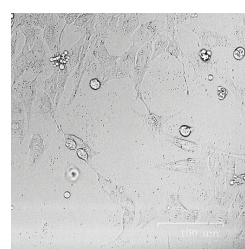
jetOPTIMUS® outperforms its main competitor with no sign of cell toxicity after transfection:



Transfections were performed on several cell lines following standard protocols.



jetOPTIMUS®



Lipofectamine® 3000

Transfections were performed on VERO cells following standard protocols.

# siRNA/miRNA transfection reagent: INTERFERin®

Use less siRNA and reach higher silencing efficiency without off-target effects!

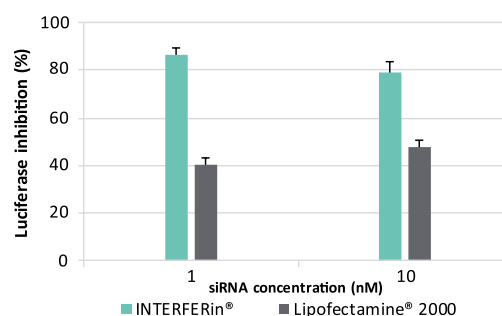


- High silencing efficiency:**  
Reach over 90% gene silencing in a wide variety of cells
- Low off-target effects:**  
Use as little as 1 nM siRNA
- Gentle mode of action:**  
Maintain an excellent cell viability
- Easy to use:**  
Rely on optimized protocols compatible with both serum and antibiotics

INTERFERin® allows efficient gene silencing using low siRNA concentration:



Transfections were performed on CaSki cell line following standard protocol.



Transfections were performed on 3LL cells stably expressing luciferase following standard protocols.

# mRNA transfection reagent: jetMESSENGER®

Take your gene expression to the next level by switching to mRNA!

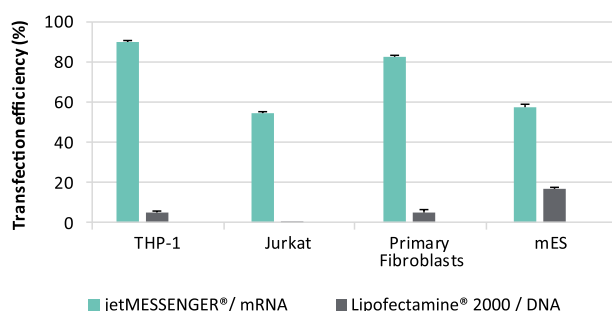
Request  
your free  
sample

mRNA  
TRANSFECTION

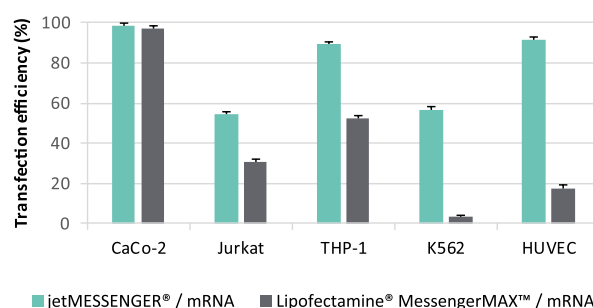
GENOME  
EDITING

- + **Unmatched transfection efficiency:**  
Outperform DNA transfection by switching to mRNA
- + **Extremely gentle on cells:**  
Maintain a good cell viability
- + **Efficient on a wide variety of hard-to-transfect cells:**  
Transfect slow dividing, quiescent and primary/stem cells
- + **Perfectly suited for numerous applications:**  
Achieve gene expression, CRISPR gene editing, iPS generation and much more

jetMESSENGER® outperforms both DNA and mRNA competitors:



Transfections were performed on several cell lines following standard protocols.



Transfections were performed on several cell lines following standard protocols.

# RNP transfection reagent: jetCRISPR®

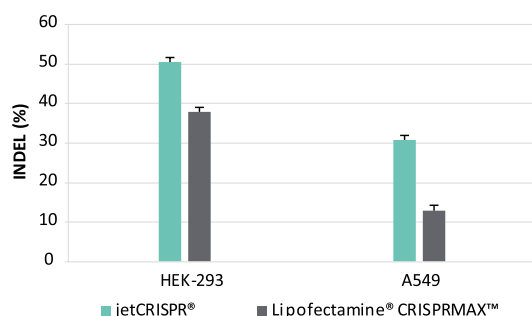
Powerful and highly specific genome editing tool!

GENOME  
EDITING

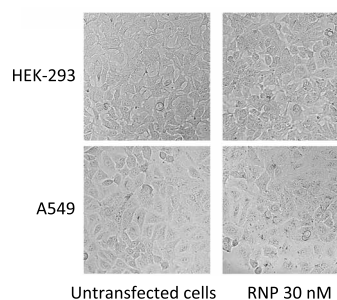
PROTEIN  
DELIVERY

- + **High genome editing efficiency using RNP:**  
Deliver both Cas protein (Cas9, Cpf1) and gRNA
- + **Reduced off-target effects:**  
Use jetCRISPR® to deliver Cas protein and gRNA for fast and reliable genome editing
- + **Maintained cell viability:**  
Work with healthy cells in a physiological environment
- + **Tailored and time-saving:**  
Choose between two optimized protocols

jetCRISPR® outperforms its main competitor while maintaining an excellent cell viability:



Transfections were performed on HEK-293 and A549 cells following standard protocols.



Transfections were performed on HEK-293 cells following standard protocol.

# Our solutions for *in vivo* transfection:

## *in vivo*-jetPEI® & *in vivo*-jetRNA®

Injectable transfection reagents for Gene therapy and Vaccination!



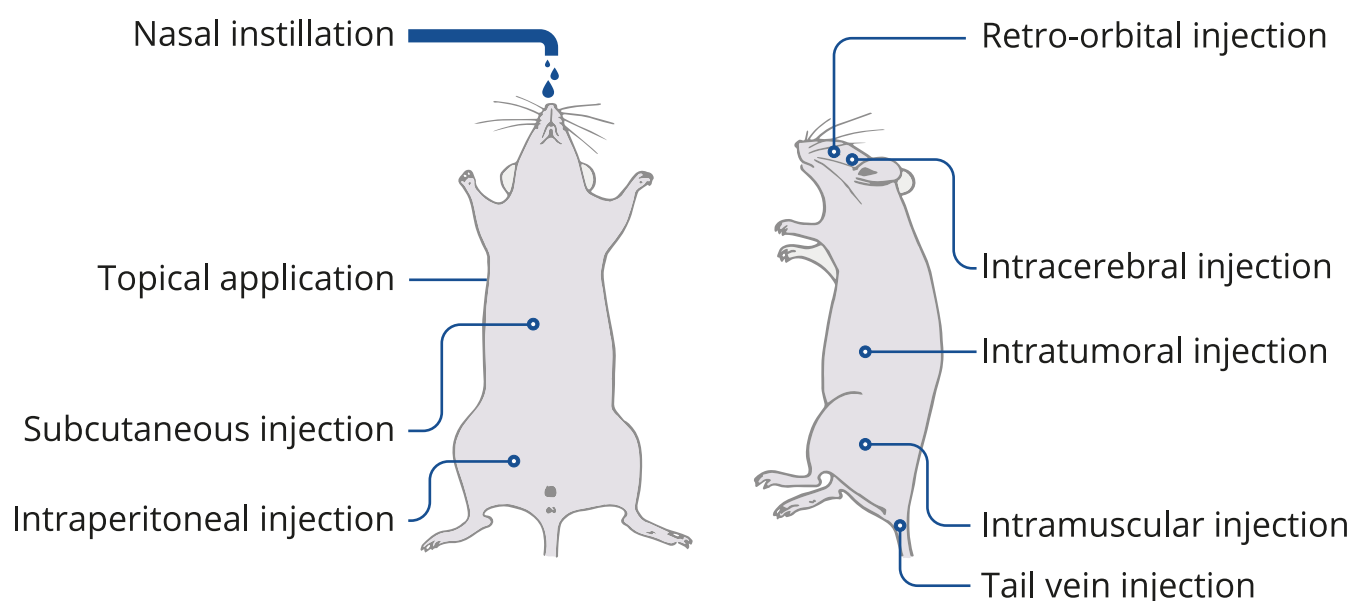
Benefit from our *in vivo* transfection reagents *in vivo*-jetPEI® and *in vivo*-jetRNA®:

- + **Easy to use:** two-step protocol
- + **Adaptable:** suitable for any injection route to target any organ
- + **Tailored:** Customized protocols from *in vivo* delivery experts

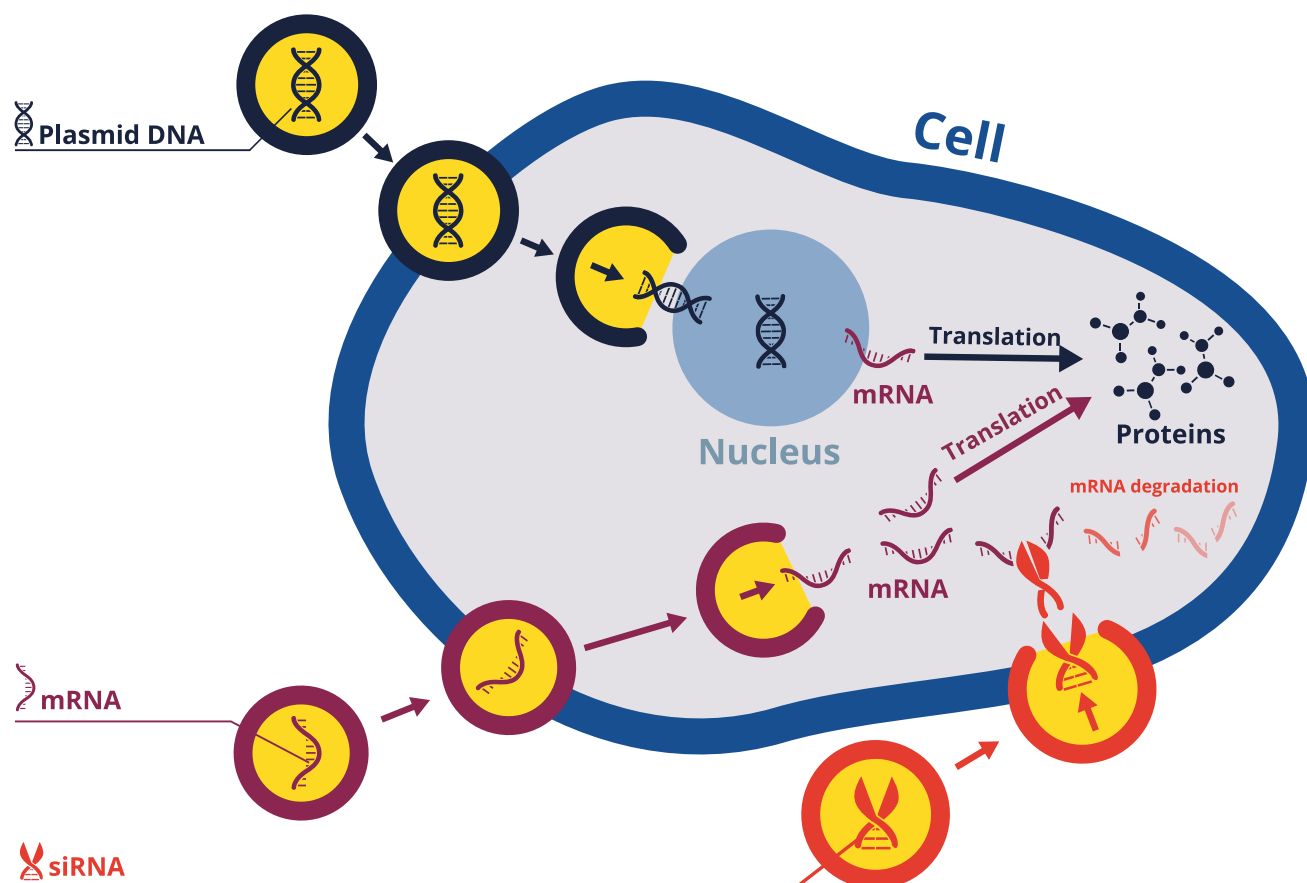
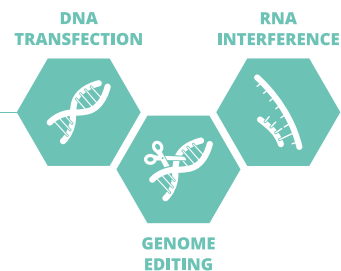


- + ***in vivo* transfection of DNA, si/sh/miRNA in any animal model**
- + **Renowned:**  
Most advanced *in vivo* transfection technology with over 700 peer-reviewed publications
- + **Successful:**  
Used from fundamental research to Human clinical trials (GMP-grade available)

- + ***in vivo* transfection of mRNA in any animal model**
- + **Powerful:**  
High delivery efficiency for mRNA-based vaccination
- + **Superior safety profile:**  
No genome integration



Injection in animal model via any administration route  
with *in vivo*-jetPEI® or *in vivo*-jetRNA®



- jetOPTIMUS® - DNA transfection reagent
- jetMESSENGER® - mRNA transfection reagent
- INTERFERin® - siRNA/miRNA transfection reagent



DNA  
TRANSFECTION



mRNA  
TRANSFECTION



GENOME  
EDITING



RNA  
INTERFERENCE



PROTEIN  
DELIVERY



VIRUS  
PRODUCTION



HIGH THROUGHPUT  
SCREENING



CELL  
SPECIFIC



IN VIVO  
TRANSFECTION



THERAPEUTICS



ORGAN  
SPECIFIC

Product		Product Size	Buffer size	Reference number
<b>in vitro transfection</b>				
<b>jetOPTIMUS®</b> Best-in-class DNA Transfection Reagent For hard-to-transfect cells		0.1 mL	10 mL	117-01
		0.75 mL	2 x 60 mL	117-07
		1.5 mL	4 x 60 mL	117-15
<b>jetPRIME®</b> DNA and/or siRNA Transfection Reagent		0.1 mL	5 mL	114-01
		0.75 mL	60 mL	114-07
		1.5 mL	2 x 60 mL	114-15
		5 x 1.5 mL	10 x 60 mL	114-75
<b>INTERFERin®</b> siRNA/miRNA Transfection Reagent		0.1 mL	-	409-01
		1 mL	-	409-10
		5 x 1 mL	-	409-50
<b>jetMESSENGER®</b> mRNA Transfection Reagent For hard-to-transfect cells		0.1 mL	10 mL	150-01
		0.75 mL	60 mL	150-07
<b>jetCRISPR®</b> RNP Transfection Reagent For genome editing		0.1 mL	-	502-01
		0.75 mL	-	502-07
<b>jetPEI®</b> DNA Transfection Reagent For High Throughput Screening		1 mL	50 mL	101-10N
		4 x 1 mL	4 x 50 mL	101-40N
<b>jetPEI®-Hepatocyte</b> DNA Transfection Reagent for hepatocytes		0.5 mL	50 mL	102-05N
<b>jetPEI®-Macrophage</b> DNA Transfection Reagent for macrophages		0.5 mL	50 mL	103-05N
<b>PULSiN®</b> Protein, Antibody and Peptide Delivery Reagent 200 µL positive control included		0.4 mL	20 mL	501-04
<b>NaCl 150 mM solution</b>		-	50 mL	702-50
<b>jetOPTIMUS® Buffer</b>		-	60 mL	717-60
<b>jetPRIME® Buffer</b>		-	60 mL	712-60
<b>in vivo transfection</b>				
<b>in vivo-jetPEI®</b> <i>in vivo</i> DNA & si/miRNA Transfection Reagent		0.1 mL	10 mL	201-10G
		0.5 mL	2 x 10 mL	201-50G
<b>in vivo-jetPEI®-Gal</b> <i>in vivo</i> DNA & si/miRNA Transfection Reagent Galactose-conjugated		0.1 mL	10 mL	202-10G
<b>in vivo-jetPEI®-Man</b> <i>in vivo</i> DNA & si/miRNA Transfection Reagent Mannose-conjugated		0.1 mL	10 mL	203-10G
<b>in vivo-jetRNA®</b> <i>in vivo</i> mRNA Transfection Reagent		0.3 mL	10 mL	204-03
		1 mL	2 x 10 mL	204-10
<b>jetSI 10 mM</b> siRNA Transfection Reagent for delivery into the Brain		0.5 mL	-	403-05
<b>Glucose Solution</b>		-	10 mL	701-10

Polyplus-transfection® provides solutions for other applications such as viral vector production for Gene & Cell therapy and protein & mAb production. Please contact our scientific support for more information.

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