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**GenePORTER[®] Transfection Reagent
Cell Specific Protocols**

B16-F0

BHK-21

CHO-K1

COS-1 / COS-7

HEK-293

Jurkat



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GenePORTER[®] Reagent Transfection Protocol

Cell Type:	B16-F0 (Return to Top)
Transfection Reagent:	GenePORTER [®] Transfection Reagent
Tissue Culture Dish Size:	24-well plate
Expected Transfection Efficiency:	>70% by GFP immunofluorescence

Procedures

1. The day before transfection, plate the cells at 4×10^4 cells per well.
2. For each well, dilute 1 μg of DNA at 1 $\mu\text{g}/\mu\text{l}$ with 125 μl of OptiMem[™]
3. For each well, dilute 5 μl of GenePORTER[®] reagent with 125 μl of OptiMem[™]
4. Add the diluted DNA to the diluted GenePORTER[®] reagent, mix rapidly and incubate at room temperature for 10-15 minutes.
5. Aspirate the culture medium from the cells, and carefully add the GenePORTER[®]/DNA mixture to the cells.
6. Incubate at 37°C for 4 hours.
7. Add one volume (250 μl) of medium containing 20% FCS to each well.
8. Continue to incubate overnight under 5-10% CO₂ at 37°C.
9. Twenty-four hours post-transfection, feed the cells with 250 μl of fresh growth media for each well.
10. Assay for gene expression 48 hours post-transfection.

Note: Transfection efficiencies may vary depending on the promoter, health of the cells, reporter gene, and method of assay.



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GenePORTER[®] Reagent Transfection Protocol

Cell Type:	BHK-21 (Return to Top)
Transfection Reagent:	GenePORTER [®] Transfection Reagent
Tissue Culture Dish Size:	24-well plate
Expected Transfection Efficiency:	>70% by GFP immunofluorescence

Procedures

1. The day before transfection, plate the cells at 4×10^4 cells per well.
2. For each well, dilute 0.5 μg of DNA at 1 $\mu\text{g}/\mu\text{l}$ with 125 μl of OptiMem[™]
3. For each well, dilute 2.5 μl of GenePORTER[®] reagent with 125 μl of OptiMem[™]
4. Add the diluted DNA to the diluted GenePORTER[®] reagent, mix rapidly and incubate at room temperature for 10-15 minutes.
5. Aspirate the culture medium from the cells, and carefully add the GenePORTER[®]/DNA mixture to the cells.
6. Incubate at 37°C for 4 hours.
7. Add one volume (250 μl) of medium containing 20% FCS to each well.
8. Continue to incubate overnight under 5-10% CO₂ at 37°C.
9. Twenty-four hours post-transfection, feed the cells with 250 μl of fresh growth media for each well.
10. Assay for gene expression 48 hours post-transfection.

Note: Transfection efficiencies may vary depending on the promoter, health of the cells, reporter gene, and method of assay.



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GenePORTER[®] Reagent Transfection Protocol

Cell Type:	CHO-K1 (Return to Top)
Transfection Reagent:	GenePORTER [®] Transfection Reagent
Tissue Culture Dish Size:	24-well plate
Expected Transfection Efficiency:	>70% by GFP immunofluorescence

Procedures

1. The day before transfection, plate the cells at 6×10^4 cells per well.
2. For each well, dilute 0.5 μg of DNA at 1 $\mu\text{g}/\mu\text{l}$ with 125 μl of OptiMem[™]
3. For each well, dilute 2.5 μl of GenePORTER[®] reagent with 125 μl of OptiMem[™]
4. Add the diluted DNA to the diluted GenePORTER[®] reagent, mix rapidly and incubate at room temperature for 10-15 minutes.
5. Aspirate the culture medium from the cells, and carefully add the GenePORTER[®]/DNA mixture to the cells.
6. Incubate at 37°C for 4 hours.
7. Add one volume (250 μl) of medium containing 20% FCS to each well.
8. Continue to incubate overnight under 5-10% CO₂ at 37°C.
9. Twenty-four hours post-transfection, feed the cells with 250 μl of fresh growth media to each well.
10. Assay for gene expression 48 hours post-transfection.

Note: Transfection efficiencies may vary depending on the promoter, health of the cells, reporter gene, and method of assay.



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GenePORTER[®] Reagent Transfection Protocol

Cell Type:	COS-1 / COS-7 (Return to Top)
Transfection Reagent:	GenePORTER [®] Transfection Reagent
Tissue Culture Dish Size:	24-well plate
Expected Transfection Efficiency:	>80% by GFP immunofluorescence

Procedures

1. The day before transfection, plate the cells at 6×10^4 cells per well.
2. For each well, dilute 1 μg of DNA at 1 $\mu\text{g}/\mu\text{l}$ with 125 μl of OptiMem[™]
3. For each well, dilute 5 μl of GenePORTER[®] reagent with 125 μl of OptiMem[™]
4. Add the diluted DNA to the diluted GenePORTER[®] reagent, mix rapidly and incubate at room temperature for 10-15 minutes.
5. Aspirate the culture medium from the cells, and carefully add the GenePORTER[®]/DNA mixture to the cells.
6. Incubate at 37°C for 4 hours.
7. Add one volume (250 μl) of medium containing 20% FCS to each well.
8. Continue to incubate overnight under 5-10% CO₂ at 37°C.
9. Twenty-four hours post-transfection, feed the cells with 250 μl of fresh growth media to each well.
10. Assay for gene expression 48 hours post-transfection.

Note: Transfection efficiencies may vary depending on the promoter, health of the cells, reporter gene, and method of assay.



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GenePORTER[®] Reagent Transfection Protocol

Cell Type:	HEK-293 (Return to Top)
Transfection Reagent:	GenePORTER [®] Transfection Reagent
Tissue Culture Dish Size:	24-well plate
Expected Transfection Efficiency:	>90% by GFP immunofluorescence

Procedures

1. The day before transfection, plate the cells at 1×10^5 cells per well.
2. Dilute 1 μg of DNA at 1 $\mu\text{g}/\mu\text{l}$ concentration with 125 μl of OptiMem[™].
3. Dilute 5 μl of GenePORTER reagent with 125 μl of OptiMem[™].
4. Add the diluted DNA to the diluted GenePORTER[®] reagent, mix rapidly and incubate at room temperature for 10-15 minutes.
5. Aspirate the culture medium from the cells, and carefully add the GenePORTER[®]/DNA mixture to the cells.
6. Incubate at 37°C for 4 hours.
7. Add one volume (250 μl) of serum-containing culture medium.
8. Continue to incubate overnight under 5-10% CO₂ at 37°C.
9. Twenty-four hours post-transfection, feed the cells with 250 μl of fresh culture media for each well.
10. Assay for maximal GFP gene expression 48-hours post-transfection.

Note: Transfection efficiencies may vary depending on the promoter, health of the cells, reporter gene, and method of assay.



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GenePORTER[®] Reagent Transfection Protocol

Cell Type:	Jurkat (Return to Top)
Transfection Reagent:	GenePORTER [®] Transfection Reagent
Tissue Culture Dish Size:	24-well plate
Expected Transfection Efficiency:	>20% by GFP immunofluorescence

Procedures

1. The day before transfection, split the cells so they will be in good condition on the day of transfection.
2. For each well, dilute 1 µg of 1 µg/µl DNA with 125 µl of OptiMem™
3. For each well, dilute 8 µl of GenePORTER[®] reagent with 125 µl of OptiMem™
4. Add the diluted DNA to the diluted GenePORTER[®] reagent, mix rapidly and incubate at room temperature for 10-15 minutes.
5. While the DNA/GenePORTER[®] complexes are forming, spin down the cells, resuspend them at 1×10^7 cells/ml in OptiMem™, and transfer 4×10^5 cells in 40 µl to each well of the dish.
6. Add the DNA/GenePORTER[®] complexes to the cells, and mix well by pipetting up and down 3-4 times to break up any cell clumps.
7. Incubate at 37°C for 4 hours.
8. Add one volume (250 µl) of medium containing 20% FCS to each well.
9. Continue to incubate overnight under 5-10% CO₂ at 37°C.
10. Twenty-four hours post-transfection, feed the cells with 250 µl of fresh growth media for each well.
11. Assay for gene expression 48 hours post-transfection.

Note: Transfection efficiencies may vary depending on the promoter, health of the cells, reporter gene, and method of assay.