AccuFect™ Transfection Reagent

[Cat. No.] K-7920

Introduction

The *AccuFect*™ Transfection Reagent has been formulated as a powerful transfection reagent that ensures effective and reproducible transfection with less cytotoxicity. After mixing *AccuFect*™ Transfection Reagent and DNA (or siRNA), the combined complex protects DNA/RNA against the degradation and promotes efficient sample transfer to eukaryotic cells. In addition, DNA and siRNA can be injected into various eukaryotic cell lines.

Applications

- Stable cell line
- Gene editing (CRISPR)
- Gene suppression (siRNA, miRNA)

Features & Benefits

- High transfection efficiency and low cytotoxicity: Specially formulated to protect DNA and prevent its degradation for efficient DNA/RNA delivery with low toxicity.
- Reproducible results: Specially formulated to produce reproducible transfection efficiency.
- Wide range of applications: Applicable on various eukaryotic cell lines including 293T, HeLa, BHK-21 cells, etc.
- High cell viability: Causes low cytotoxicity which maintains high cell viability of around 70-80%.

Components

Components	Amount
AccuFect™ Transfection Reagent	1 ml

*** Note**: For research use only. Not for use in diagnostic or therapeutic procedures.

Storage

- *AccuFect*™ Transfection Reagent should be stored at -20°C or below. Do not store in a frost-free freezer.

Precautions

- During operation, always wear a lab coat, disposable gloves, and protective equipment. All products are for research use only.

Type of cell line applicable to *AccuFect*™ Transfection Reagent

Cell Lines	Efficiency (% GFP)	Best Record
293T	> 90%	98%
BHK-21	> 80%	96%
HuH-7	> 75%	95%
HepG2	> 75%	92%
Vero	> 40%	82%
HMEC-1	> 40%	65%
U118 MG	> 25%	43%
SKNSH	> 25%	58%
CHO-K1	> 70%	90%
MDCK	> 65%	79%
Other cell lines which can be transfected		
THP-1	K562	C6/36
A549	HT-29	HeLa
HUVEC	SP2/0	P3X63Ag8
PBMCs	SF9	S2

Online Resources

Korean English

Visit our **product page** for additional information and protocols.

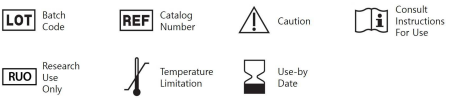
Ordering Information

Description	Cat. No.
AccuFect™ Transfection Reagent	K-7920

Notice

BIONEER corporation reserves the right to make corrections, modifications, improvements and other changes to its products, services, specifications or product descriptions at any time without notice.

Explanation of Symbols



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Experimental Procedures

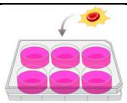
Steps		Procedure Details
Day 0		
1	 **Preparation of cells**	1. One day before transfection, seed appropriate number of cells (See table 1.) to be 60-70% confluency. * **Note:** Different cell types and number of passages might lead to different transfection efficiency, and we recommend using at least two different concentrations of transfection reagent as control in new transfect experiments to optimize experimental conditions.
Day 1		
2	 **Preparation of mixture**	2. The medium should be refreshed 30 min before transfection. In general, culture medium with serum does not affect transfection efficiency. 3. Prepare mixture of DNA (or siRNA) by diluting in serum-free medium and mix well (See table 1.). Then, incubate at RT for 5 min. * **Note:** Plasmid DNA for transfection should have high purity (A_{260}/A_{280}=1.8-1.9) to ensure efficient transfection. * **Note:** Endotoxin-contaminated DNA results in inefficient transfection and can cause high cellular toxicity. 4. Meanwhile, prepare a mixture of diluted *AccuFect*™ Transfection Reagent in serum-free medium (See table 1.) and incubate at RT for 5 min. 5. Mix gently the solutions prepared in step 3 and step 4, then let it stand at RT for 25 min. * **Note:** Do not vortex to mix the reaction mixture. **Example** • When using 6-well plate, prepare 2 tubes containing 25 µl of serum-free medium. Add 1 µg of DNA in one and 3 µl of *AccuFect*™ Transfection Reagent in the other. After incubating at RT for 5 min, gently mix with each other by pipetting.
3	 **Add mixture and incubate cells**	6. Add appropriate volumes of mixtures into cell culture dishes or plate and incubate at 37°C in a CO_2 incubator. 7. **[Optional]** If serum-free medium is used, it should be removed and refilled with serum including culture medium, 6-48 hrs after transfection.
Day 2-4		
4	 **Analyze transfected cells**	8. 24 to 72 hrs after transfection, analyze the transfected cells. * **Note:** Observation time can be varied depending on different cell type.

Table1. Recommended reagent amount according to different sizes of culture dishes or plates.

Culture Dish/Plate	Media Volume	Amount of DNA	Serum-Free Medium	*AccuFect*™ Transfection Reagent	Number of cells to seed (Adherent cells)
96-well	100 µl	250 ng	10 µl	0.75 µl	1.5-3.0x10^4
24-well	500 µl	500 ng	25 µl	1.5 µl	0.5-1.2x10^5
12-well	700 µl	750 ng	35 µl	2.25 µl	1.3-2.5x10^5
6-well	1 ml	1 µg	50 µl	3 µl	2.5-5.0x10^5
6 cm	3 ml	2.5 µg	150 µl	7.5 µl	0.5-1.0x10^6
10 cm	6 ml	5 µg	300 µl	15 µl	2.0-4.0x10^6

* **Note:** Prepare mixture of siRNA, dilute siRNA duplex (making final concentration as 5-100 nM) in medium.

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