



PolyFectRNA™ Transfection Reagent

Catalog Number: FP332, FP333

Table 1. Product Package and Storage

Cat No.	Product Name	Amount	Storage
FP332	PolyFectRNA™	1 mL	4°C: one year
FP333	PolyFectRNA™	3 mL	

Introduction

PolyFectRNA™ Transfection Reagent is an innovative cationic nanotechnology developed specifically for the delivery of siRNA and miRNA into a wide range of eukaryotic cells. PolyFectRNA™ Transfection Reagent provides the highest transfection efficiencies on the widest variety of cell types for siRNA-mediated gene knockdown experiments. The reagent is compatible with the use of serum and antibiotics in the cell culture medium.

Feature

- A simple and rapid protocol for consistent and reproducible results.
- Superior transfection efficiency.
- Compatible with a broad range of cell types.
- Low cytotoxicity.

Protocols

1. Cell seeding

Cell seeding has to be adjusted according to your cell culture vessel. For optimal transfection conditions with PolyFectRNA™, we recommend seeding the cells the day before transfection to reach 60-80% confluent cells on the day of transfection.

Table 2. Recommended number of cells to seed the day before transfection.

Culture vessel	96-well	24-well	6-well
Adherent cells	$1-4 \times 10^4$	$0.5-2 \times 10^5$	$0.25-1 \times 10^6$

2. Preparation of the complexes

The recommended complexation parameters are described in Table 3.

Table 3. Complexation parameters for the transfection of adherent cells.

Parameter	96-well	24-well	6-well
siRNA	1 pmol	5 pmol	25 pmol
PolyFectRNA™	0.4 µL	2 µL	8 µL

3. Transfection

The following protocol is given for transfection of adherent cells in a 24-well plate according to the recommended conditions in Table 3.

1. One day before transfection, plate $0.5-2 \times 10^5$ cells in 500 μL of growth medium without antibiotics so that cells will be 60-80% confluent at the time of transfection.
2. Dilute 5 pmol of siRNA in 25 μL of Opti-MEM® Medium (or other medium without serum). Mix gently.
3. Mix PolyFectRNA™ gently before use, then dilute 2 μL of PolyFectRNA™ in 25 μL of Opti-MEM® Medium. Mix gently.
4. Add the 25 μL PolyFectRNA™ solution onto the 25 μL siRNA solution all at once. Mix immediately the solution, either by briefly vortexing it or inverting the tube few times.
5. Incubate the complexes at room temperature for 15 minutes.
6. Add the 50 μL PolyFectRNA™/siRNA mix to the cells in 500 μL of medium. Mix gently by rocking the plate back and forth.
7. Incubate cells at appropriate temperature and CO₂ levels (e.g. 37°C, 5%) for 1-3 days. Then, analyze transfected cells.

4. Optimizing gene silencing efficiency

To obtain the highest gene silencing efficiency, optimize transfection conditions by varying siRNA concentration from 10 nM to 50 nM. Then, adjust the corresponding amount of PolyFectRNA™.