MCE USA
Tel: 609-228-6898
Email: tech@MedChemExpress.com

PolyFast Transfection Reagent

1 Contents

Components	HY-K1014-750 μL	HY-K1014-1.5 mL	HY-K1014-7.5 mL
PolyFast Transfection Reagent	750 μL	1.5 mL	5 x 1.5 mL

2 Introduction

MCE PolyFast Transfection Reagent consists of cationic polymers and can introduce nucleic acids (DNA or RNA) into eukaryotic cells. In polymer-based transfection, exogenous DNA forms complexes with cationic polymers that enter host cells by endocytosis. PolyFast Transfection Reagent has high-efficiency, low-toxicity transfection of many cell types, including some hard-to-transfect cells.

3 General Protocol

1. Prepare cells

1.1 Inoculate cells in advance until the desnity reaches 70-90% for cell transfection.

Note: The viability and general health of cells prior to transfection significantly affect transfection result. Cells should be at least 90% viable prior to transfection and have had sufficient time to recover from passaging.

1.2 Remove the medium. Wash twice with PBS, and then add 900 μL serum-free medium to each well of 6-well plate.

2. Prepare PolyFast Transfection Reagent/DNA complex

2.1 According to table 1, dilute 3 μL PolyFast Transfection Reagent with 50 μL serum-free medium for each well of 6-well plate and mix gently. Incubate at room temperature for 5 minutes.

2.2 According to table 1, dilute 1 μg DNA with 50 μL serum-free medium for each well of 6-well plate and mix gently. Incubate at room temperature for 5 minutes.

2.3 Mix the diluted PolyFast Transfection Reagent and DNA gently. Incubate at room temperature for 15 minutes.

3. Add PolyFast Transfection Reagent/DNA complex to cells

Add the PolyFast Transfection Reagent/DNA complex to cells in 6-well plate and mix well. Incubate at 37°C for 24-48 hours. The medium can be replaced with fresh serum-containing medium after 6 hours if necessary.

Table 1. PolyFast Transfection Reagent: DNA Ratio.

Plate Size		96-well	24-well	12-well	6-well	60 mm	100 mm
Growth Area (per well)		0.3 cm^2	2 cm^2	4 cm^2	9.5 cm^2	20 cm^2	60 cm^2
Serum-free medium		80 μL	450 μL	630 μL	900 μL	2.7 mL	5.4 mL
Dilution of Transfection Reagent	Transfection Reagent	0.75 μL	1.5 μL	2.25 μL	3 μL	7.5 μL	15 μL
	Serum-free medium	10 μL	25 μL	35 μL	50 μL	150 μL	300 μL
Dilution of DNA or RNA	DNA	0.25 μg	0.5 μg	0.75 μg	1 μg	2.5 μg	5 μg
	Serum-free medium	10 μL	25 μL	35 μL	50 μL	150 μL	300 μL
Total Volume (per well)		100 μL	500 μL	700 μL	1 mL	3 mL	6 mL

Note: 1). Generally, the ratio of DNA (μg) to PolyFast Transfection Reagent (μL) is 1:3, and the transfection effect can be optimized in the range of 1:1 to 1:5 if necessary.

2) RNA transfection just follows the protocol as described for DNA.

4. Detection

Measure transfection efficiency using an appropriate assay for the reporter gene. For transient transfection, cells are typically assayed 24-48 hours after transfection.

4 Storage

Store at -20°C for 2 years. Avoid repetitive freeze-thaw cycles.

5 Precautions

1. The viability and general health of cells prior to transfection significantly affect transfection result. Cells should be at least 90% viable prior to transfection and have had sufficient time to recover from passaging.
2. Take high-purity, sterile, contaminant-free DNA or RNA for transfection.
3. Dilute the PolyFast Transfection Reagent and DNA in serum-free medium.
4. This product is for R&D use only, not for drug, household, or other uses.
5. For your safety and health, please wear a lab coat and disposable gloves to operate.