



## Product Information & Manual

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### HyFect® mRNA-Xpert Transfection Reagent

Cat no. LDG0003RA

#### Product Overview

##### Package component

Item	Content
HyFect® mRNA -Xpert Transfection Reagent	500 µL

#### Description

HyFect® mRNA-Xpert Transfection Reagent is specifically designed to introduce mRNA into mammalian cells with minimal cellular toxicity. By delivering mRNA directly to the cytoplasm, it bypasses transcriptional regulation, enabling immediate expression. This method also avoids the risk of genetic integration, thereby minimizing the potential for mutations associated with plasmid DNA.

#### Storage and Stability

- (1) Stored at -20°C.
- (2) All reagents are stable for one year under proper storage conditions.

#### Procedure

- (1) Cell preparation: Cells should be seeded 16 to 20 hours prior to transfection with around 70% confluence. The medium should be refreshed 30 minutes before transfection. Typically, culture medium containing serum does not affect transfection.
- (2) mRNA preparation: mRNA for transfection should be with high purity ( $A_{260}/A_{280}=1.9-2.0$ ) to ensure efficient transfection mixture preparation.
- (3) Mixture preparation: The guideline for the amount and ratio of mRNA and HyFect® mRNA-Xpert Transfection Reagent can be found in Table 1. In brief, dilute the

mRNA and transfection reagent in serum-free culture medium for 5 minutes, then mix them gently for an additional 5-10 minutes.

- (4) Transfection: Add mixtures into cell culture dish/plate. The mixture could be removed after 18-24 hours and refilled with culture medium.

Culture Dish/Plate	Medium Volume	mRNA / Serum-free medium	*HyFect® mRNA -Xpert Transfection Reagent / Serum-free medium
96-well	100 µL	0.25 µg / 10 µL	0.25 µL / 10 µL
24-well	500 µL	0.5 µg / 25 µL	0.5 µL / 25 µL
12-well	700 µL	0.75 µg / 35 µL	0.75 µL / 35µL
6-well	1 mL	1 µg / 50 µL	1 µL / 50 µL
6 cm	3 mL	2.5 µg / 150 µL	2.5 µL / 150 µL
10 cm	6 mL	5 µg / 300 µL	5 µL / 300 µL

Table 1. Recommended formula of transfection mixture

#### \* Transfection Optimization

Determine the best HyFect® mRNA-Xpert Transfection Reagent: mRNA ratio for each cell type. Vary the concentration of HyFect mRNA-Xpert® Transfection Reagent from 1-3 µL per 1 µg mRNA to find the optimal ratio.

#### Important notes

HyFect® mRNA-Xpert Transfection Reagent is recommended for use with Gibco™ Opti-MEM™ I Reduced-Serum Medium or Gibco™ OptiPRO™ SFM for alternative optimizing transfection efficiency.

#### Disclaimer

This product is for research use only and is not intended for diagnostic use

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