

# TransIT®-LT1 Transfection Reagent

## Quick Reference Protocol

Instructions for MIR 2300, 2304, 2305, 2306, 2310

Full protocol, SDS and Certificate of Analysis available at [mirusbio.com/2300](http://mirusbio.com/2300)



### SPECIFICATIONS

Storage	Store TransIT®-LT1 Transfection Reagent tightly capped at 4°C. <b>Before each use</b> , warm to room temperature and vortex gently.
Product Guarantee	1 year from the date of purchase, when properly stored and handled.

### ► PLASMID DNA TRANSFECTION PROTOCOL



Full protocol and additional documentation available at [mirusbio.com/2300](http://mirusbio.com/2300)

### Fill in volumes below based on culture vessel used for transfection (Table 1).

#### A. Plate cells

1. Plate cells in \_\_\_ml complete growth medium (per well).  
**For adherent cells:** Plate cells at a density of  $0.8\text{--}3.0 \times 10^5$  cells/ml.  
**For suspension cells:** Plate cells at a density of  $2.5\text{--}5.0 \times 10^5$  cells/ml.
2. Culture overnight. Most cell types should be  $\geq 80\%$  confluent on day of transfection.

#### B. Prepare TransIT®-LT1 Reagent:DNA complexes

1. Warm TransIT®-LT1 Reagent to room temperature and vortex gently.
2. Place \_\_\_ $\mu$ l of OptiMEM® I Reduced-Serum Medium in a sterile tube.
3. Add \_\_\_ $\mu$ l plasmid DNA. Mix gently by pipetting.
4. Add \_\_\_ $\mu$ l of TransIT®-LT1 Reagent. Mix gently by pipetting.
5. Incubate at room temperature for 15-30 minutes.

#### C. Distribute complexes to cells

1. Add TransIT®-LT1:DNA complex mixture drop-wise to different areas of the well.
2. Gently rock plate for even distribution of complexes.
3. Incubate 24-72 hours.
4. Harvest cells and assay as required.

Table 1. Recommended starting conditions

Culture vessel	24-well plate	12-well plate	6-well plate
Surface area	1.9 cm <sup>2</sup>	3.8 cm <sup>2</sup>	9.6 cm <sup>2</sup>
Complete growth medium	0.5 ml	1 ml	2.5 ml
Serum-free medium	50 $\mu$ l	100 $\mu$ l	250 $\mu$ l
DNA (1 $\mu$ g/ $\mu$ l stock)	0.5 $\mu$ l	1 $\mu$ l	2.5 $\mu$ l
TransIT®-LT1 Reagent	1.5 $\mu$ l	3 $\mu$ l	7.5 $\mu$ l

### ► Transfection Optimization

Determine the best TransIT®-LT1 Reagent:DNA ratio for each cell type. Start with 3  $\mu$ l of TransIT®-LT1 Reagent per 1  $\mu$ g of DNA. Vary the concentration of TransIT®-LT1 Reagent from 2–6  $\mu$ l per 1  $\mu$ g DNA to find the optimal ratio.

For additional optimization tips, see [full protocol](#).  
Cell-type-specific recommendations available at  
Reagent Agent: [mirusbio.com/ra](http://mirusbio.com/ra)



**Reagent Agent<sup>®</sup>**

Reagent Agent<sup>®</sup> is an online tool designed to help determine the best solution for nucleic acid delivery based on in-house data, customer feedback and citations.

Learn more at: [mirusbio.com/ra](https://www.mirusbio.com/ra)

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