

# TransIT®-2020 Transfection Reagent

## Quick Reference Protocol

Instructions for MIR 5400, 5404, 5405, 5406, 5410

Full protocol, SDS and Certificate of Analysis available at [mirusbio.com/5400](http://mirusbio.com/5400)



## SPECIFICATIONS

Storage	Store TransIT®-2020 Reagent tightly capped at -20°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/5400](http://mirusbio.com/5400)

### 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  $0.8-3.0 \times 10^5$  cells/ml.

**For suspension cells:** Plate cells at a density of  $2.5-5.0 \times 10^5$  cells/ml.

2. Culture overnight. Most cell types should be approximately 80% confluent at the time of transfection.

#### B. Prepare TransIT®-2020 Reagent:DNA complexes

1. Warm TransIT®-2020 to room temperature and vortex gently.
2. Place \_\_\_µl of Opti-MEM® I Reduced-Serum Medium in a sterile tube.
3. Add \_\_\_µl plasmid DNA. Mix gently by pipetting.
4. Add \_\_\_µl of TransIT®-2020 Reagent. Mix gently by pipetting.
5. Incubate at room temperature for 15-30 minutes.

#### C. Distribute complexes to cells

1. Add TransIT®-2020: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 µl	100 µl	250 µl
DNA (1 µg/µl stock)	0.5 µl	1 µl	2.5 µl
TransIT®-2020 Reagent	1.5 µl	3 µl	7.5 µl

### ► Transfection Optimization

Determine the best TransIT®-2020 Reagent:DNA ratio for each cell type. Start with 3 µl of TransIT®-2020 Reagent per 1 µg of DNA. Vary the concentration of TransIT®-2020 Reagent from 1-4 µl per 1 µg DNA to find the optimal ratio.

For additional optimization tips, see [full protocol](http://mirusbio.com/5400). Cell-type-specific recommendations available at [Reagent Agent: mirusbio.com/ra](http://mirusbio.com/ra)

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**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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