

# TransIT<sup>®</sup>-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 <sup>®</sup> -2020 Reagent tightly capped at -20°C.<br><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 x 10<sup>5</sup> cells/ml.

**For suspension cells:** Plate cells at a density of 2.5—5.0 x 10<sup>5</sup> cells/ml.

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

#### B. Prepare TransIT<sup>®</sup>-2020 Reagent:DNA complexes

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

#### C. Distribute complexes to cells

1. Add TransIT<sup>®</sup>-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 <sup>®</sup> -2020 Reagent | 1.5 μl              | 3 μl                | 7.5 μl              |

### ► Transfection Optimization

Determine the best TransIT<sup>®</sup>-2020 Reagent:DNA ratio for each cell type. Start with 3 μl of TransIT<sup>®</sup>-2020 Reagent per 1 μg of DNA. Vary the concentration of TransIT<sup>®</sup>-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/ra). Cell-type-specific recommendations available at [Reagent Agent: mirusbio.com/ra](http://mirusbio.com/ra)



Reagent Agent® 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://mirusbio.com/ra)

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Rev.C 123119