

TransIT®-Jurkat Transfection Reagent

Quick Reference Protocol

Instructions for MIR 2120, 2122, 2124, 2125, 2126

Full protocol, SDS and Certificate of Analysis available at mirusbio.com/2120



SPECIFICATIONS

Storage	Store TransIT®-Jurkat Reagent tightly capped at 4°C. <i>Before each use</i> , 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/2120

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) at a density of $2-4 \times 10^5$ cells/ml.
2. Culture overnight.

Optional: Alternatively, plate cells at a density of $4-8 \times 10^5$ cells/ml complete growth medium, just prior to transfection.

B. Prepare TransIT®-Jurkat Reagent:DNA complexes

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

C. Distribute complexes to cells

1. Add TransIT®-Jurkat: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 ²	3.8 cm ²	9.6 cm ²
Complete growth medium	0.5 ml	1 ml	2.5 ml
Serum-free medium	50 μ l	100 μ l	250 μ l
DNA (1 μ g/ μ l stock)	0.5 μ l	1 μ l	2.5 μ l
TransIT®-Jurkat Reagent	1.5 μ l	3 μ l	7.5 μ l

▶ Transfection Optimization

Determine the best TransIT®-Jurkat Reagent:DNA ratio for each cell type. Start with 3 μ l of TransIT®-Jurkat Reagent per 1 μ g of DNA. Vary the concentration of TransIT®-Jurkat Reagent from 1-5 μ l per 1 μ g DNA to find the optimal ratio.

TransIT®-Jurkat reagent also works well for additional cell lines of hematopoietic origin such as K562, RAW264.7 and THP-1.

For additional optimization tips, see [full protocol](#).

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Reagent Agent[®]

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.

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