

Technical Note

Transfection protocols for high throughput screening (HTS)

- For **siRNA transfection: INTERFERin™-HTS** (see page 24-25)
- For **DNA transfection: jetPEI™** (see page 26-27)

- **Fast and efficient methods to transfect cells for HTS**
- **Reproducible: guaranteed quality from batch to batch**
- **No medium changes required, since both jetPEI™ and INTERFERin™-HTS are compatible with serum and antibiotics**
- **Transfection in the presence of antibiotics decreases the risk of contamination in HTS**

+ How to choose the best protocol

Our HTS dedicated transfection reagents can be used efficiently with three different protocols depending on the experiment:

Reverse protocol:

The most appropriate when transfecting a DNA or a siRNA library. In this protocol, the transfection complexes are prepared or deposited in the wells prior to addition of the cells. Transfection complexes formed with jetPEI™ or INTERFERin™-HTS are stable for up to 4 hours. The reverse protocol is the most commonly used for HTS applications.

Batch protocol:

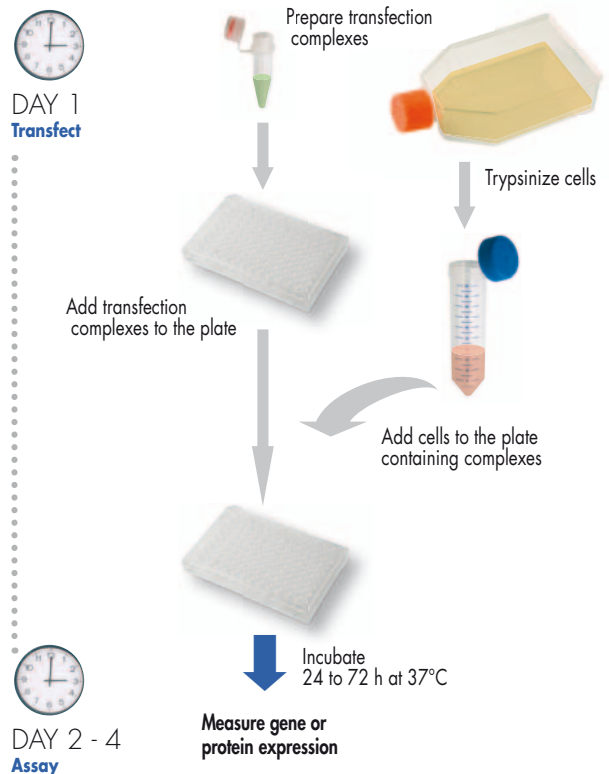
Developed to prepare a homogeneous pool of transfected cells. For this purpose, the cells are transfected just after trypsinization, while still in suspension. This protocol is preferred for drug screening applications and allows rapid processing, one day faster than the forward protocol.

Forward protocol:

Cells are split the day before transfection and the transfection complexes are added to the adherent cells.

+ Reverse HTS Protocol

- Well-suited for plasmid or siRNA library screening approaches and automated cell distribution
- Transfection complexes are deposited or prepared in the wells prior to cell distribution
- Adaptable to any plate size (from 96- up to 1536-well plates)
- Easy and straightforward 2-step protocol



+ Batch HTS Protocol

- Well-suited for drug screening requiring one cell line transfected with the same plasmid or siRNA
- Cell plating and transfection are performed on the same day
- Ideal to ensure homogenous and reproducible transfection
- Easy and straightforward 2-step protocol

+ Forward HTS Protocol

- Cells are plated the day before transfection and transfection complexes are added to the cells the next day
- Very gentle to cells, recommended for all type of cell lines, including sensitive cells
- 3-step reproducible and straightforward protocol

