Omics Bio

Ver.1.0.2022

Maestrofectin™ Transfection Reagent User Manual

Catalog number: MF002

Storage Condition:

Maestrofectin™ Transfection Reagent is stable for 12 months at 4 °C.

Ordering Information:

Product	#MF002-1	#MF002
Maestrofectin™ Transfection Reagent	1 ml	1ml x 2

Product Description:

Maestrofectin™ Transfection Reagent is a polymer-based transfection reagent and is a proprietary formulation for the transfection of DNA and RNA into eukaryotic cells. Maestrofectin™ Transfection Reagent is suitable for many cell types and has been shown to transfect cells with high efficiency and low cellular-toxicity.

Scaling Maestrofectin™ Transfection Reagent Ratio Before Experiments

- **Transient transfection of adherent cells**

Maestrofectin™ Transfection Reagent works best when the cells are 70-95% confluent at the time of transfection. Seed adherent cells 24 hours before transfection at a density between $5x10^4$ to $1x10^5$ for a well of a 24 well plate. See **Table 1** to set up transfection reactions in different types of culture vessels.

Table 1: Transfection reactions for adherent cells cultured in different types of cell culture vessels. The volume of each reaction mix listed below is for one well. Scale volumes proportionally for additional wells.

Culture Vessel	Number of adherent cells	Vol. of Medium per vessel (ml)	Amount of Plasmid DNA (μg)	Vol.of Transfection Reagent (μl)	Final vol. of DNA/reagent mixture (μl)
96 well	$1x10^4$-$1.7x10^4$	0.1	0.05-0.2	0.15-0.4	10
24 well	$5x10^4$-$1x10^5$	0.5	0.2-1.0	0.6-2.0	30
6 well	$2x10^5$-$4x10^5$	2	1.0-3.0	3.0-9.0	120
35 mm	$2x10^5$-$4x10^5$	2	1.0-3.0	3.0-9.0	120
60 mm	$4x10^5$-$8x10^5$	5	3.0-5.0	6.0-15.0	300
10 cm	$1x10^6$-$6x10^6$	10	5.0-10.0	15.0-30.0	600

- **Transient transfection of suspension cells**

Maestrofectin™ Transfection Reagent transfects suspension cells as well. See **Table 2** to set up transfection reactions in different types of culture vessels.

Table 2: Transfection reactions for suspension cells cultured in different types of cell culture vessels. The volume of each reaction mix listed below is for one well. Scale volumes proportionally for additional wells.

Culture Vessel	Number of adherent cells	Vol. of Medium per vessel (ml)	Amount of Plasmid DNA (μg)	Vol.of Transfection Reagent (μl)	Final vol. of DNA/reagent mixture (μl)
96 well	$2x\ 10^4$~ $5\ x\ 10^5$	0.05-0.2	0.15-0.4	0.05-0.2	10
24 well	$1x\ 10^5$~ $2x\ 10^5$	0.2-1.0	0.6-2.0	0.2-1.0	30
6 well	$2x\ 10^5$~ $5\ x\ 10^5$	1.0-3.0	3.0-9.0	1.0-3.0	120
35 mm	$5x\ 10^5$~ $2x\ 10^6$	1.0-3.0	3.0-9.0	1.0-3.0	120
60 mm	$2x\ 10^6$~ $5x\ 10^6$	3.0-5.0	6.0-15.0	3.0-5.0	300
10 cm	$5x\ 10^6$~ $1x\ 10^7$	5.0-10.0	15.0-30.0	5.0-10.0	600

Transfection Procedures:

Use Table 1 (adherent cells) or Table 2 (suspension cells) to set up your transfection reaction. Please adjust the reaction set up according to your need.

- **Transfection of plasmid DNA**

(1) Preparing the **Working Reagent**: Dilute adequate amount of Maestrofectin™ Transfection Reagent with serum-free medium (without antibiotics) (**Table 1** or **Table 2**). Mix well by gently pipetting or vortexing (~1 second). Incubate for 5 minutes at room temperature.

Note: Avoid letting Maestrofectin™ Transfection Reagent make direct contact with the surface of plastic tube. Always add medium into the tube before adding Maestrofectin™ Transfection Reagent.

(2) Add plasmid DNA into the **Working Reagent** (prepared in step 1) and mix well by gently pipetting. Incubate for 15 minutes at room temperature. For some cell lines, the incubation time can be prolonged to up to 30 minutes.

(3) Add DNA/ Maestrofectin™ **Transfection Reagent Complex** (prepared in step 2) to cells and mix well by gently shaking the plate. Incubate the cells in a CO_2 incubator for 18-48 hours at 37°C.

- **Transfection of siRNA**

The following protocol is suggested for the transfection of a well in a 24-well plate. Please adjust the reaction set up according to the types of your cell culture vessel.

(1) Preparing the **Working Reagent**: Dilute 1 µl of the Maestrofectin™ Transfection Reagent with 30 µl of serum-free medium (without antibiotics). Mix well by gently pipetting or vortexing (~1 second). Incubate for 5 minutes at room temperature.

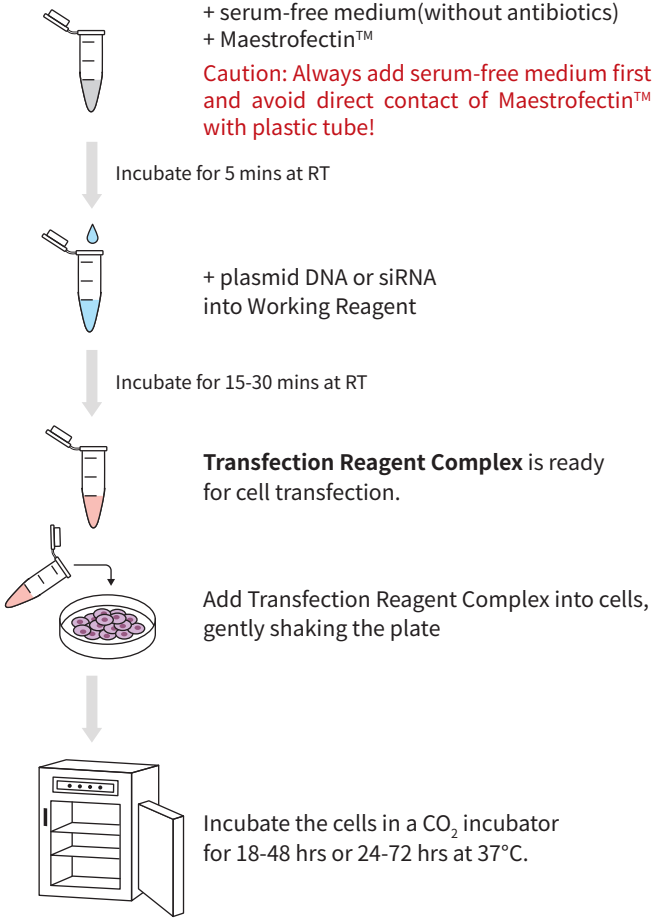
Note: Avoid letting Maestrofectin™ Transfection Reagent make direct contact with the surface of plastic tube. Always add medium into the tube before adding Maestrofectin™ Transfection Reagent.

(2) Add 100 pmol of siRNA into the **Working Reagent** (prepared in step 1). Mix well by gently pipetting.

(3) Incubate the mixture of siRNA and Maestrofectin™ Transfection Reagent solution (prepared in step 2) for 15 minutes at room temperature.

(4) Add the siRNA / Maestrofectin™ **Transfection Reagent complex** (prepared in step 3) to cells and mix well by gently shaking the plate. Incubate the cells in a CO_2 incubator for 24-72 hours at 37°C.

- **Quick Guide**



Technical Support:

Contact your regional sales representative or email to info@omicsbio.com

THIS PRODUCT IS FOR RESEARCH USE ONLY, NOT FOR DIAGNOSTIC PURPOSE.

www.omicsbio.com
+886-2 8698 2268
17F-3, No. 75, Sec. 1, Xintai 5th Rd., Xizhi Dist.,New Taipei City 22101, Taiwan (R.O.C.)