QuickShuttle-Superfast Transfection Reagent

Cat# CC1017

Storage at 2-8℃

INTRODUCTION

QuickShuttle is a proprietary cationic polymer-based transfection reagent, which is optimized for the purpose of maximal transfection efficiency, ease of use, and minimal cytotoxicity. It is recommended for plasmid DNA transfection into mammalian cells by means of transient transfection as well as stable cell line generation. QuickShuttle has two unique features that other conventional transfection reagents don't have: (1) transfection could be done immediately after cell subculture; (2) transfection could be completed in just one minute.

INTENDED USE

(1) transient and stable transfection of most mammalian adherent cell lines (transfection immediately after cell subculture)

(2) stable transfection of most mammalian suspension cell lines.

TRANSFECTION GUIDELINES:

1. Plasmid DNA: prepared with low endotoxin or endotoxin-free plasmid extraction kit.
2. Diluent: 0.85%（W/V）saline，prepared with low endotoxin pure water，sterilized by autoclave or 0.22μm filtration.
3. Media: tested with DMEM、RPMI-1640 and M199, recommend to use DMEM with 5-10% bovine serum, and transfection efficiency could be optimized using other media.
4. For transfection in 24-well plates, we recommend the amounts of endotoxin-free plasmid DNA and QuickShuttle are in the ranges of 1~2μg and 3~5μl per well, respectively, which should be optimized with reporter genes according to specific cells and media used if best results are expected.
5. Not recommended for adherent cell lines with low adherence ability, such as various 293 cell lines.
6. This reagent is able to transfect most mammalian suspension cell lines, although at low efficiency but sufficient for stable cell line generation after antibiotic selection.

TRANSFECTION PROTOCOL

1. Plate 1~2 x 10^5 suspension or freshly digested adherent cells per well into 24-well plates in 1 ml of complete medium.

Note: Transfection could be performed immediately after cell subculture, saving as long as 18~24 hours of waiting time compared with other conventional transfection reagents.

2. Dilute 1~2μg of endotoxin-free plasmid DNA and 3~5μl of QuickShuttle respectively into 50μl of 0.85% (w/v) sterilized saline.

Note: The dosage of plasmid DNA and transfection reagent should be optimized according to specific cells and media used, which are theoretically within the ranges of 1~2μg and 3~5μl per well, respectively.

3. Combine two solutions and mix well by pipetting or flicking.

Note: The 10~30 minutes of incubation time in conventional transfection experiments could be saved when prepare DNA/transfection reagent complexes.

4. Add the DNA/transfection reagent complexes directly into culture media, and mix gently by pipetting or rocking the plate back and forth.

Note: Transfection could be performed in the presence of bovine serum and antibiotics without the compromise of transfection efficiency. In rare cases if cell detachment occurs, please remove 500μl of medium from the culture to dilute the DNA/transfection reagent complexes then transfer back to the culture.

5. Transfer 24-well plates to a 37ºC/5%CO2 incubator.

Note: It's unnecessary to change media after 4~6 hours of incubation.

6. Perform transient expression analysis or stable cell line selection using antibiotics 24~72 hours post-transfection.

PRODUCT USE LIMITATION

These products are intended for research use only.