Susfectin™ Transfection Reagent

Cat. No. G4000

Store at 4°C.

Product Description

Susfectin™ is a biodegradable, polymer-based transfection reagent for the transfection of suspension cells. **Susfectin™** forms complexes with DNA to enable the transport of DNA into a variety of suspension cells. This polymer is engineered to rapidly degrade after transfection, making it much less cytotoxic to cells and improving both the transfection efficiency and productivity of transgene expression.

Product Component	Quantity
Susfectin™	1.0 ml

Recommended Transfection Conditions

1. Ensure your plasmid DNA is of high quality, clean, and sterile.
2. Serum-free DMEM must be used to prepare dilutions of Susfectin™ and plasmid DNA for transfection.
3. Ensure cells are healthy, with >95% viability before transfection.
4. Transfection efficiency can be optimized by testing ratios of Susfectin™:plasmid DNA ranging from 2:1 to 3:1.

Protocol

1. Seed suspension cells one day before transfection day.
2. On transfection day, ensure cell density is approximately 1 x 10^6 cells/ml in a flask containing 30 ml of culture medium.
3. Place the cells in a 37°C incubator or on an orbital shaker. It may be necessary to vortex cells vigorously for 10-30 sec to break cell clumps and ensure cells are in a single-cell suspension. Viability must be at >90%.
4. For each 30 ml of suspension cells (4 x 10^6 cells/ml) to be transfected, prepare a solution of 25 µg of plasmid DNA diluted into 1 ml of serum-free DMEM. Vortex to mix.
5. Prepare a solution of 60 µl of Susfectin™ diluted into 1 ml of serum-free DMEM. Vortex to mix.
6. Combine the Susfectin™ solution and the plasmid DNA solution to form the Susfectin™-DNA Complex. Mix well but gently.
7. Incubate the Susfectin™-DNA Complex mixture for 10 minutes at room temperature. Do not incubate for longer than 20 minutes.
8. After the 10 minute incubation, transfer all 2 ml of the Susfectin™-DNA Complex mixture into the flask containing the 30 ml of suspension cells, swirling while adding transfection reagents.
9. Incubate the cells with the Susfectin™-DNA Complex mixture in a 37°C incubator at 8% CO_2 and on an orbital shaker set to 125 rpm.
10. Harvest cells or media (if recombinant protein is secreted) 48 hours post-transfection for downstream use.

General Notes

- When preparing the Susfectin™-DNA Complex, never use DMEM containing serum as trace amounts of serum may interfere with complex formation.
- Pilot experiments may be needed to optimize for cell density, cell viability, and Susfectin™:DNA transfection ratios for each suspension cell line.

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