LAMDA BIOTECH

# PRODUCT INFORMATION

**Catalog No.:** TS316

**Product Name:** **SusFexin**

**Size:** 1ml

**Description:** **SusFexin** is a biodegradable polymer based transfection reagent for suspension cell transfection. When mix with DNA, it will form complex with DNA and transport the complex into a variety of suspension and adherent cell lines. A remarkable feature of the reagent is the rapid and complete degradation of the polymer after transfection, leading to a much less cytotoxicity to the transfected cells and improving transfection efficiency and productivity of trans-gene expression.

**Feature:**

- *Superior transfection efficiency for suspension cell lines.*
- *No requirement of removal of serum from culture medium.*
- *No requirement for washing or changing of medium after transfection.*
- *High protein or antibody production.*
- *Low cytotoxicity.*

**Storage:** **Store at 4°C.**

# Protocols

## Recommended Conditions for Transfection:

1. Make sure your plasmid DNA is in high quality, clean and sterile.
2. Dilute the Transfection Reagent and plasmid DNA in serum-free DMEM for transfection.
3. Make sure that the cells are healthy and greater than 90% viable before transfection.
4. Optimize transfection efficiency with the ratio of Transfection Reagent/DNA in the range of 1:1 to 2:1.

## Typical Procedure for Suspension Cell Transfection:

**Note:** In this protocol, 30ml of CHO cell line culture is used as an example. Scale up or down for different transfection volume.

1. One day before transfection, freshly seed the cells at the density about $1\times10^6$ cells/ml for next day transfection.
2. On the day of transfection, make sure cell line at the density about $2\text{-}2.5\times10^6$ cells/ml.
3. For each transfection of 30ml suspension cell culture dilute 60μg of plasmid DNA in 1.5ml of serum free DMEM, gently mix well.
4. Dilute 120μl of **SusFexin** in 1.5ml of serum free DMEM, gently mix well.
5. Transfer the diluted **SusFexin** to the tube containing the diluted DNA, and mix immediately either by briefly vortexing or inverting the tube a few times.
6. Incubate the mixture for 15 minutes at room temperature to allow the formation of **SusFexin-DNA Complex**.
7. After 15 min incubation, transfer the entire 3ml of the **SusFexin-DNA Complex** to the flask containing 30mL cells; and mix gently by rocking the flask back and forth a few times.
8. Incubate the cells at 37°C in a humidified $CO_2$ incubator on an orbital shaker rotating at 125rpm.
9. Harvest cells or media (if the expressed protein is a secreted protein) at around 48 hours post-transfection for downstream procedures.

**Important Note:**

1. When prepare the complex, use Opti-MEM or serum free DMEM to dilute plasmid DNA and the **SusFexin** because serum will interfere the formation of **SusFexin-DNA Complex**.
2. For productive transfection of different suspension cell lines, pilot experiments may be needed to optimize cell density, cell viability, and Transfection Reagent/DNA ratio for each cell line.