Successful
Cell Transfection

ScreenFect

Liposomal transfection reagents

Technology

We combine our expertise in chemistry and biology to create an interdisciplinary R&D environment that encompasses chemical design, synthesis, liposomal reagent preparation, cell-based screening assays as well as identification and final optimization of novel transfection reagents.

Our proprietary thiol-yne based combinatorial click chemistry method allows parallel, high-throughput synthesis of hundreds of novel lipid-like molecules. This efficient, cost effective method allows rapid synthesis of lipids with diverse chemical structures.

Over 10% of the chemical molecules in our first "lipid library", synthesized in 2011, displayed higher transfection efficiency than the most widely used commercial transfection reagents. Our Screen*Fect*® transfection reagents are primarily based on the most efficient lipid-like molecules from this library.

Our Screen*Fect*® reagents

Multi-purpose transfection reagents

Screen*Fect*®A
Reduced cytotoxicity

Screen*Fect*®A-plus
Optimized formulation requiring less reagent per transfection

Application specific reagents

Screen*Fect*®siRNA
Optimized for siRNA and miRNA transfections

Screen*Fect*®mRNA
Optimized for mRNA transfection and reprogramming applications

Large scale transfection reagents

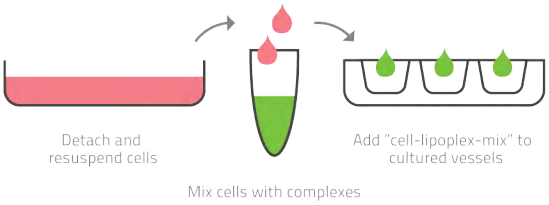
Screen*Fect*®UP
Optimized for transfections of >10 mL of HEK293 suspension cells

Use the One-Step protocol to save one day doing your transfections!

Advantages and Highlights

- **High transfection efficiency**
- **Low cytotoxity**
- **Optimized protocol to save one day!**
  Use our **fast and simple** One-Step protocol for cell plating and transfection the same day
- **Serum compatible** and no need to change media
- Free of animal derived components
- Suitable for **high throughput screenings**

The "One-Step" Method (also referred to as "Reverse Cell Transfection") is a **time efficient** procedure. As opposed to having to plate cells the previous day, freshly detached cells in suspension are added directly to the transfection complexes (lipoplexes, complexes of nucleic acid and liposomes). The transfection process is thus initiated even before cell attachment takes place.



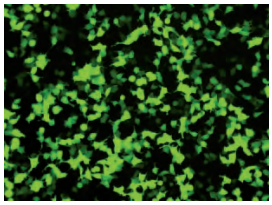
The One-Step Transfection Method is **highly recommended for ScreenFect® Reagents.** Due to the low cytotoxicity of our reagents, the One-Step method **does not harm the cells** but **significantly increases transfection efficiencies compared to competitors for most cell lines** tested.

ScreenFect®A

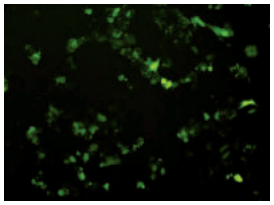
Versatile multi-purpose transfection reagent with especially low cytotoxicty

Especially low cytotoxicty

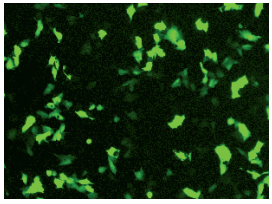
GFP transfection results (examples)



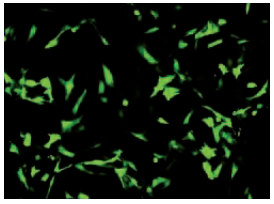
HEK293T



mESC

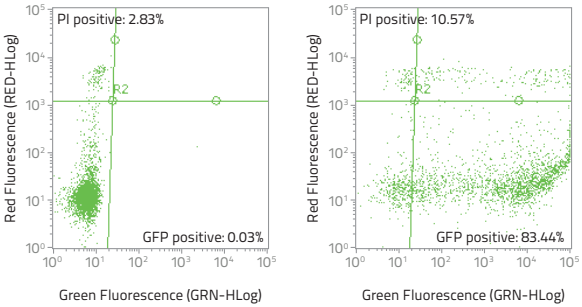


PAC2



C2C12

Flow cytometry results using ScreenFect®A in HEK293 cells



Some examples for successfully transfected cell lines

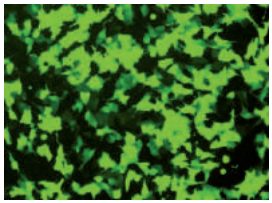
Cell line	Origin
786-O	human kidney carcinoma cells
A431	epidermoid carcinoma cells
AB9	caudal fin of adult zebrafish
COS-7	monkey kidney fibroblast cells
DU14S	human prostate carcinoma cells
HEK293	human embryonic kidney cells
HEp-2	human epidermoid cancer cells
HepG2	human liver carcinoma cells
HKC-8	human renal proximal tubular cells
HL7704	human adult hepatocyte cells
Ins-1	murine insulinoma cells
LO2	human hepatic cells
M3CT3-E1	osteoblast like cell line
MCF-10a	human mammary epithelial cells
MEF	mouse embryonic fibroblasts
mESC	mouse embryonic stem cells
MG6	mouse migroglia cells
MTPa	mammary adenocarcinoma cells
NIH3T3	mouse embryonic fibroblast cells
PAC2	fibroblast zebrafish cell line
PLC8024	human hepatoblastoma cells
RAW264.7	murina macrophage leukemia cells
SK-Hep1	human liver adenocarcinoma cells
U937	human histiocytic leukemia cells

ScreenFect®A

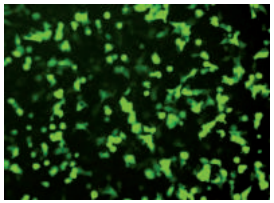
ScreenFect®A-plus

Multi-purpose transfection reagent with optimized formulation requiring less reagent per transfection

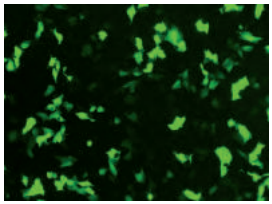
GFP transfection results



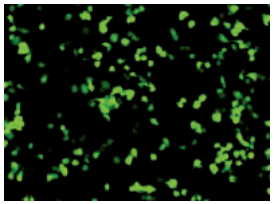
HeLa



HCT116



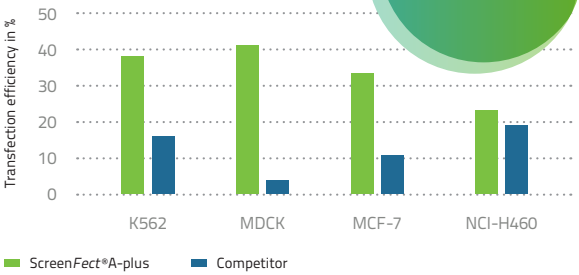
HepG2



Neuro2a

Examples of difficult-to-transfect cell lines

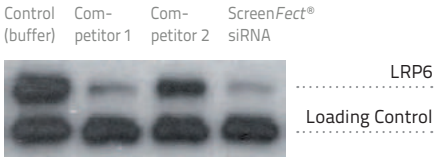
Less reagent per transfection



ScreenFect®siRNA

Delivery of small interfering RNA duplexes for gene knock-down

LRP6 protein "knock-down" in MEF cells



Long-term gene silencing

Long-term gene silencing

U87 glioblastoma cells stably expressing a dual GFP/Luc reporter construct

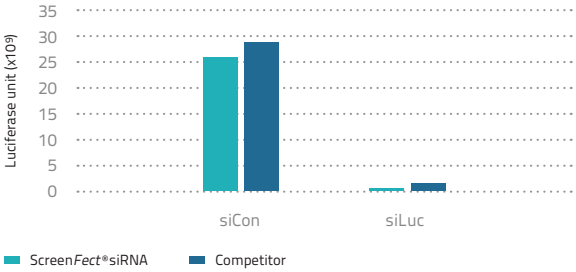
GFP

Blank

ScreenFect®siRNA

Competitor

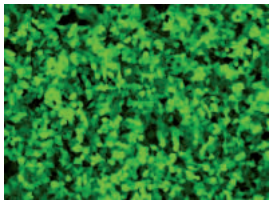
Luciferase



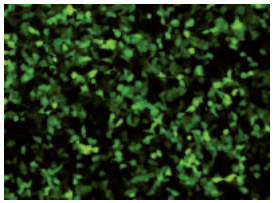
ScreenFect® mRNA

Reagent optimized for highly efficient transfection of cells with mRNAs suitable for reprogramming cells

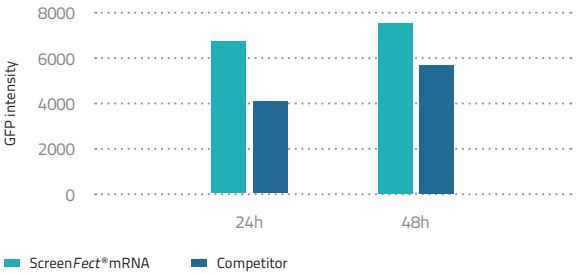
EGFP mRNA transfections



ScreenFect®mRNA



Competitor



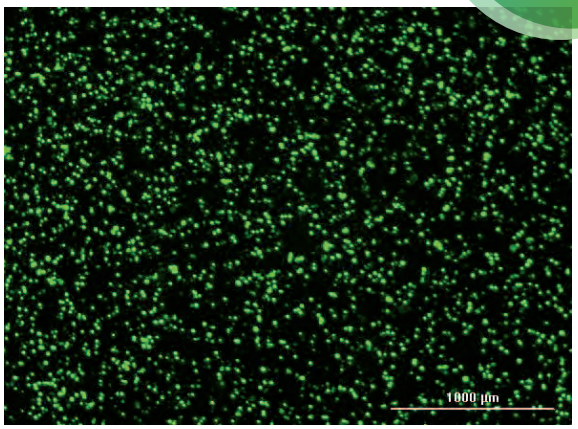
Compatible with multiple transfections

ScreenFect® UP

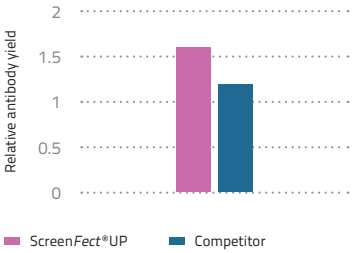
High protein expression in HEK293 suspension cells for volumes greater than 10 mL

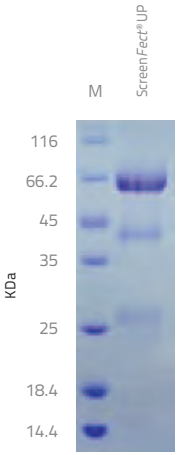
Volumes greater than 10 mL

GFP expression in 293F cells



Antibody production





ScreenFect® mRNA

ScreenFect® UP

About ScreenFect

ScreenFect is a biotechnology company located near Karlsruhe, Germany. We develop, manufacture and sell novel highly efficient transfection reagents.

Our transfection reagents are available in many countries worldwide.

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ScreenFect