

PromoFectin

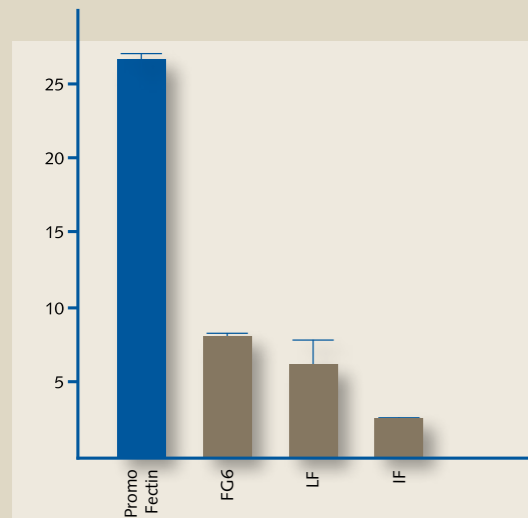
- Efficient transfection
- Suited for cell lines and primary cells
- Works in the presence of serum and antibiotics
- Gentle to sensitive cells

PromoFectin is a series of reagents for highly effective and reproducible transfection of adherent and non-adherent cells. PromoFectin comes either as a broad-range reagent or specialized reagents for specific cell types and biomolecules.

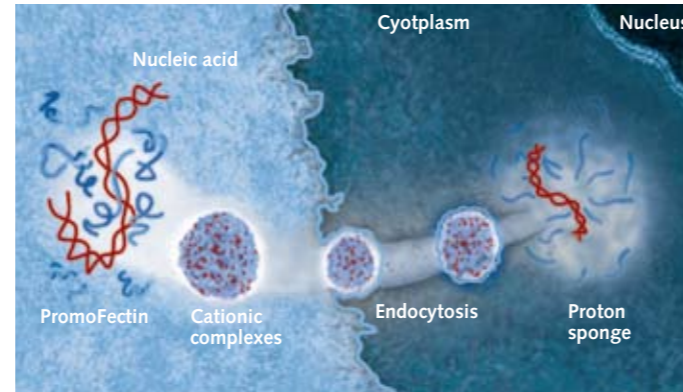
PromoFectin

PromoFectin is a non-liposomal transfection reagent based on a water-soluble, cationic polymer. First, it delivers DNA into the cytosol where the DNA is almost completely released, then PromoFectin promotes DNA trafficking to the cell nucleus. PromoFectin functions with both adherent and non-adherent cells with a high degree of reproducibility. Since its development, PromoFectin has been used successfully with many problematic cell lines and sensitive primary cells.

RLU (x 10⁶)



Comparison of PromoFectin with three other common transfection reagents designated for primary cells using human primary fibroblasts and a luciferase reporter assay.

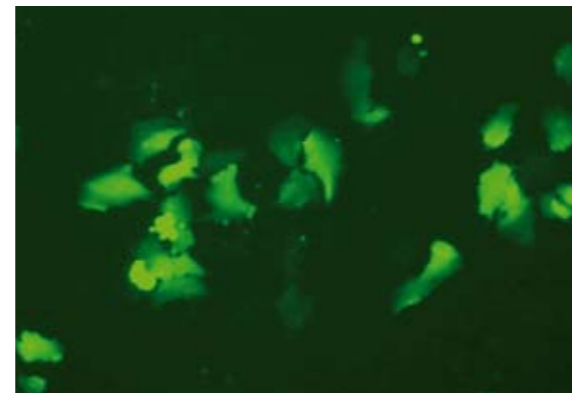


PromoFectin-HUVEC

PromoFectin-HUVEC is a PromoFectin derivative optimized for the transfection of primary endothelial cells such as HUVEC and HDMEC. It shows very little cytotoxicity and enables very high transfection rates.

PromoFectin-Hepatocyte

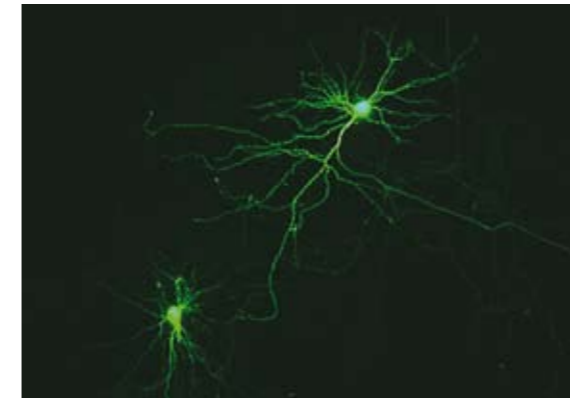
PromoFectin-Hepatocyte is a ligand-conjugated derivative of PromoFectin specialized for hepatocyte transfection (e.g. human and murine hepatocytes, hepatocyte cell lines, and hepatocarcinoma cells). The reagent/nucleic acid complexes bind specifically to surface receptors on the target cells leading to extremely high transfection rates.



Primary human hepatocytes expressing GFP after transfection with PromoFectin-Hepatocyte.

PromoFectin-Neuron

PromoFectin-Neuron is a cationic, polymer-based transfection reagent created for the transfection of primary neuronal cells, glial cells, and neuronal cell lines. Cells take up the polymer/DNA complex through endocytosis, where the polymer is biodegraded into non-toxic molecules. Compared to viral methods, PromoFectin-Neuron allows less complicated nucleic acid delivery with high transfection rates.



Primary neuron transfected with an eGFP plasmid using PromoFectin-Neuron.

PromoFectin-Insect

PromoFectin-Insect is a unique, liposome-based transfection reagent optimized for nucleic acid delivery into insect cells, especially those derived from *Spodoptera frugiperda* (e.g. Sf9 or Sf21). It outperforms other insect cell transfection reagents in comparison studies and requires less DNA. PromoFectin-Insect demonstrates broad vector delivery capability, excellent reproducibility, and high expression levels for small- or large-scale protein production.

PromoFectin-Oligo

PromoFectin-Oligo is a novel transfection reagent intended for the delivery of oligonucleotides into a wide variety of cell types. Unlike similar reagents, it shows low cytotoxicity and excellent transfection efficiency.

PromoFectin-siRNA

PromoFectin-siRNA is a cationic, lipid-based transfection reagent designed for the highly efficient delivery of siRNA into a wide variety of cell types, including problematic cell lines and primary cells. It enables optimal gene silencing with low cytotoxicity.

PromoFectin-Polypeptide

PromoFectin-Polypeptide is a novel reagent created for the highly efficient delivery of proteins and polypeptides (e.g. blocking peptides and labeled antibodies) into a wide variety of cells. It captures protein molecules and transports them into the cytosol of living cells while maintaining the protein's structure. This allows researchers to study intracellular protein functions without the need for DNA cloning and DNA transfection.

| Product | Size | Catalog Number |
|-------------------------|---------------------|---------------------|
| PromoFectin | *0.1 ml | PK-CT-2000-10 |
| | 0.5 ml | PK-CT-2000-50 |
| | 1 ml | PK-CT-2000-100 |
| PromoFectin-HUVEC | ***0.1 ml | PK-CT-2000-HUV-10 |
| | 0.5 ml | PK-CT-2000-HUV-50 |
| PromoFectin-Hepatocyte | ***0.1 ml | PK-CT-2000-HEP-10 |
| | 0.5 ml | PK-CT-2000-HEP-50 |
| PromoFectin-Neuron | **0.75 ml | PK-CT-2000-NEU-075 |
| | 5 x 0.75 ml | PK-CT-2000-NEU-375 |
| PromoFectin-Insect | ***0.5 ml | PK-CT-2000-InC-50 |
| | 1 ml | PK-CT-2000-InC-100 |
| PromoFectin-Oligo | **0.5 ml | PK-CT-2000-OLI-050 |
| | 1 ml | PK-CT-2000-OLI-100 |
| | 5 x 1 ml | PK-CT-2000-OLI-500 |
| PromoFectin-siRNA | 50 React. | PK-CT-2000-RNA-50 |
| | 200 React. | PK-CT-2000-RNA-200 |
| | 5 x 200 React. | PK-CT-2000-RNA-1000 |
| PromoFectin-Polypeptide | 24 React. | PK-CT-2000-POL-24 |
| | 24 Single Use Vials | PK-CT-2000-POL-24Q |
| | 96 React. | PK-CT-2000-POL-96 |
| | 96 Single Use Vials | PK-CT-2000-POL-96Q |

* 1 ml is sufficient to perform up to 500 transfections in 24-well plates.

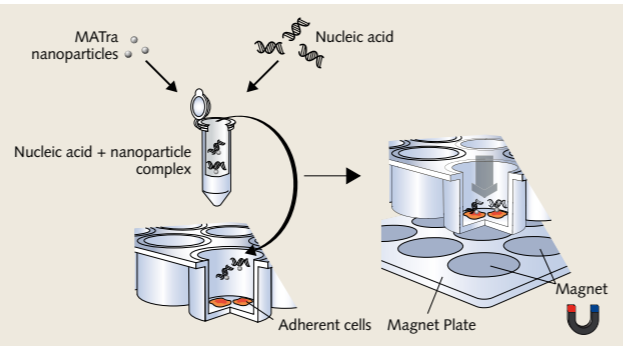
** 1 ml is sufficient to perform up to 400 transfections in 24-well plates.

*** 1 ml is sufficient to perform up to 300 transfections in 24-well plates.

Magnet-Assisted Transfection

- Efficient high dose transfection
- Fast procedure
- Suited for cell lines and primary cells
- Works in the presence of serum and antibiotics

Magnet Assisted Transfection (MATra) is a very fast and highly efficient technology for transfecting cells in culture. It can be used for adherent and, in combination with the MATra-S Immobilizer, suspension cells from a broad variety of species. The major components of MATra are coated magnetic nanoparticles, which effectively bind either nucleic acids or liposomes. Using a special magnet plate, the nanoparticles with the bound nucleic acids or liposomes are rapidly drawn towards the cells and are deposited at a high concentration on the outer cell membrane. Afterwards, the cells endocytose the particles, which leads to a high transfection rate even with problematic cells.



MATra-A Reagent

The MATra-A Reagent contains coated magnetic nanoparticles, which effectively bind nucleic acids (e.g. plasmid DNA or oligonucleotides) due to an innovative polyelectrolyte coating.

MATra-siRNA Reagent

The MATra-siRNA Reagent contains specifically coated magnetic nanoparticles, which are optimized to effectively bind and stabilize siRNA (small interfering RNA).

MA Lipofection Enhancer

The MA Lipofection Enhancer contains coated magnetic nanoparticles, which bind liposomes and any polycationic transfection reagents (e.g. PromoFectin) which in turn bind nucleic acids (e.g. plasmid DNA, oligonucleotides, siRNA). Using the MA Lipofection Enhancer, cells are transfected more efficiently than with liposomal or polycationic transfection reagents alone.

MATra-S Immobilizer

The MATra-S Immobilizer contains coated magnetic nanoparticles, which bind suspension cells. Using a special magnet plate, the magnetic nanoparticles with the bound cells are rapidly drawn towards the bottom of the cell culture vessel, where they are immobilized. By combining the MATra-S Immobilizer with the other MATra reagents, suspension cells can also be transfected conveniently.

Magnet Plates

To perform Magnet Assisted Transfection, specially designed neodymium magnet plates are necessary. PromoKine offers them in different sizes, optimized for different cell culture vessels.

| Product Name | Size | Catalog Number |
|-------------------------|----------------------|----------------|
| MATra-A Reagent | *50 µl | PK-CT-2001-005 |
| | 200 µl | PK-CT-2001-020 |
| | 1 ml | PK-CT-2001-100 |
| MATra-siRNA Reagent | *50 µl | PK-CT-2021-005 |
| | 200 µl | PK-CT-2021-020 |
| | 1 ml | PK-CT-2021-100 |
| MA Lipofection Enhancer | 50 µl | PK-CT-2003-005 |
| | 200 µl | PK-CT-2003-020 |
| | 1 ml | PK-CT-2003-100 |
| MATra-S Immobilizer | **200 µl | PK-CT-2002-020 |
| | 1 ml | PK-CT-2002-100 |
| Magnet Plate | for 24 well plates | PK-CT-2006-000 |
| | for 96 well plates | PK-CT-2004-000 |
| | universal 8 x 13 cm | PK-CT-2011-000 |
| | universal 26 x 26 cm | PK-CT-2012-000 |

* 1 µl is sufficient to transfect up to 1 µg nucleic acids
** 1 µl is sufficient to immobilize up to 35,000 cells

Cell Transfection

