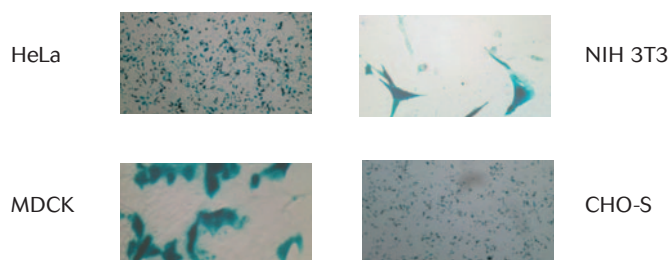




Optimal transfection for cells plated at low confluence

High-efficiency transfection of cells at low confluence is fast and simple with Optifect™ Transfection Reagent. Applications such as studies of cell surface proteins, proliferation assays, HTP screens, and other situations require cells to be transfected at low plating density. Optifect™ Reagent is pre-optimized for high-efficiency transfection of cells plated at low cell density (10% – 70% confluence) (Figure 1).

Figure 1 - Cells transfected at even 10% confluence with Optifect™ Reagent result in robust gene expression



Cells were transfected at 10% confluence in 24-well plates using 1 µg of pcDNA™3.1/V5-His/lacZ following the protocol supplied with Optifect™ Reagent.

Easily get versatile, high performance transfections

Ideal for transfection, Optifect™ Reagent provides:

- **Versatility**—Highly efficient gene delivery to the broadest possible range of cell lines
- **Performance**—Highly efficient gene delivery and protein expression from sparsely-plated cells
- **Easy-to-follow protocols** with no washing steps or media changes

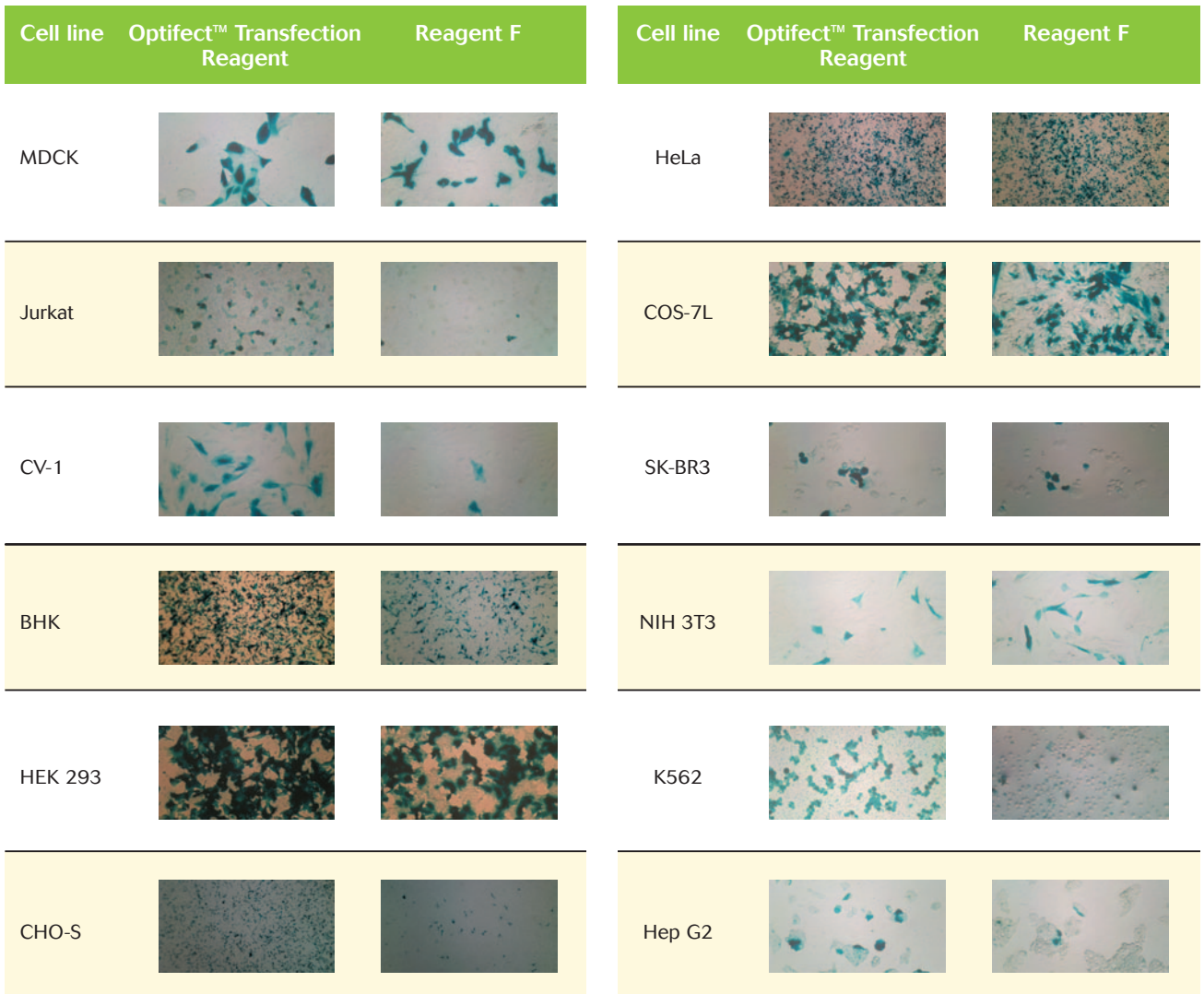
Optifect™ Reagent expands your transfection horizons. Now you can easily transfect cells at the densities you need for any experimental application. You'll succeed even in the trickiest low confluence transfection applications when you use Optifect™ Reagent.

Highest efficiency possible

Optifect™ Reagent delivers high transfection efficiencies, even for sensitive cells plated at low densities, such as HeLa cells plated at 30% confluence. By enabling high-efficiency

transfection of a wide variety of cell lines plated at low confluence (Figure 2), Optifect™ Reagent allows you to succeed in even the most difficult transfection situations.

Figure 2 - Optifect™ Reagent is superior in a wide variety of cells to another transfection reagent



Cells were transfected at 30% confluence in 24-well plates using 1 µg of pcDNA™3.1/V5-His/lacZ following the protocols supplied with the reagents.

Achieve high levels of expression

Optifect™ Reagent yields high levels of protein expression and facilitates high transfection efficiencies from sparsely-plated cells. It is even effective for gene delivery to low-expressing or difficult-to-transfect cells such as IMR 90 (Table 1). You'll be able to choose cells for your experiments that are more biologically relevant, increasing the value of your research.

Table 1 - High protein yields following transfection with Optifect™ Reagent

Cell line	µg β-gal/cm ²
BHK	1665
GripTite™ 293 MSR	1199
COS-7L	1160
K562	489
HeLa	144
MDCK	63.8
HEP G2	63.0
HT1080	48.4
A549	24.5
CV-1	23.2
Jurkat	21.7
NIH 3T3	7.30
IMR 90	2.15

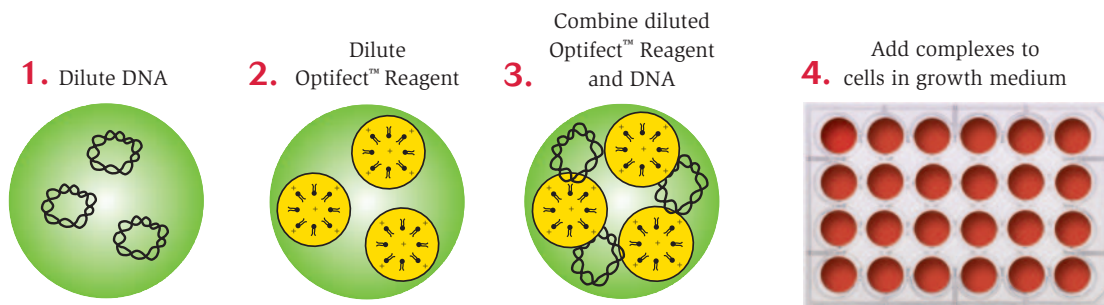
Cells were transfected with Optifect™ Reagent at 30% confluence, 24 hours after plating in 96-well plates. Cells were transfected with 0.3 µg of pcDNA™3.1/V5-His/lacZ and peak amounts of Optifect™ Reagent (range 0.4 to 2.25 µl depending on cell type). β-galactosidase expression was measured 48 hours following transfection using the Tropix® system (Applied Biosystems).

Save time

Even in difficult situations, Optifect™ Reagent's protocol remains simple and easy to follow (Figure 3). No time-wasting, tedious media changes or cell-washing steps.

Nothing could be faster or more convenient for working under low cell density transfection conditions.

Figure 3 - Outline of transfection procedure for Optifect™ Reagent



Transfect as you like

Don't alter your protocol to fit your transfection reagent. Optifect™ Reagent is the easiest, fastest way to transfect cells at low density. If you are performing proliferation assays, studying cell surface markers or any other procedure that requires transfecting cells at low density, order Optifect™ Reagent today.

Special packaging

Optifect™ Reagent is available in customized packaging for your specific needs. Contact your Invitrogen™ account manager or technical service, so we can assist you with your special packaging requirements.

Ordering Information

Product	Quantity	Cat. no.
Optifect™ Transfection Reagent	1 ml	12579-017



Tropix® is a trademark of Applied Biosystems

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