HeLaFect - *Results*

HeLaFect is a transfection reagent specifically developed for HeLa cell lineage transfection with high efficiency. **HeLaFect** is a lipid-based reagent based on the Tee-Technology ("Triggered Endosomal Escape"). The cationic design of **HeLaFect** reagent allows high nucleic acid compaction for an efficient transport into HeLa cells. This reagent is composed by biodegradable lipids leading to high viability and is ready-to-use.

HeLaFect transfection reagent benefits:

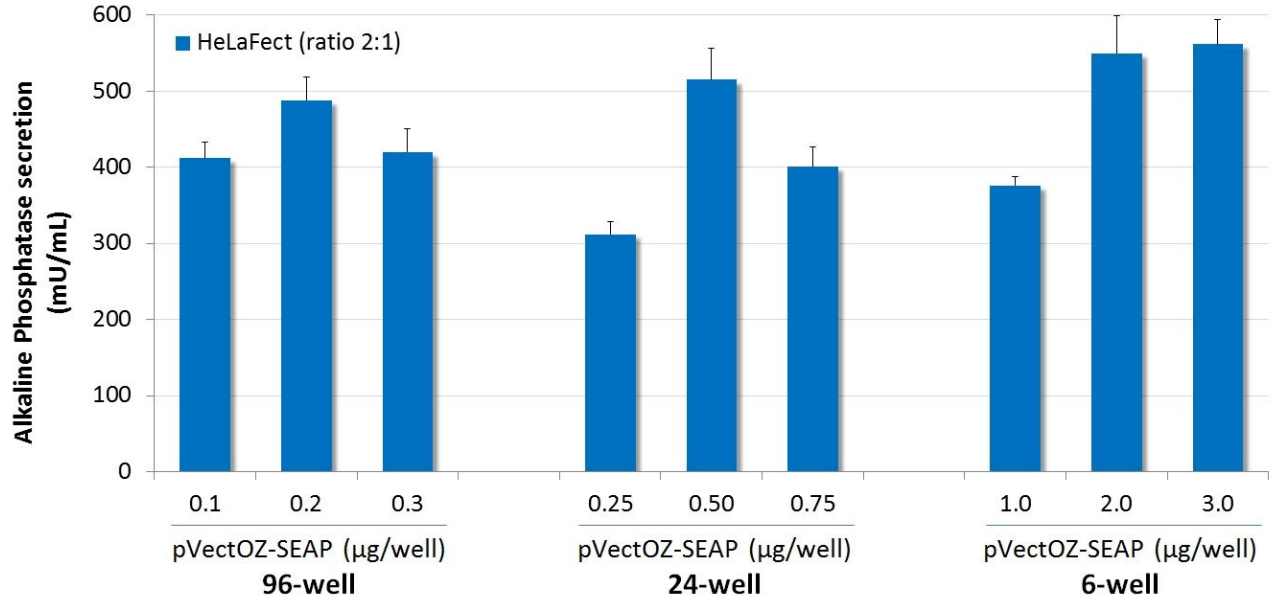
- highly efficient: more than 80% of transfected HeLa cells
- Ready-to-use: no need for additional buffer
- Low nucleic acid amount - minimized toxicity
- High level of nucleic acid compaction
- Easy and straightforward protocol
- Compatible with any culture medium: medium change not required

Applications

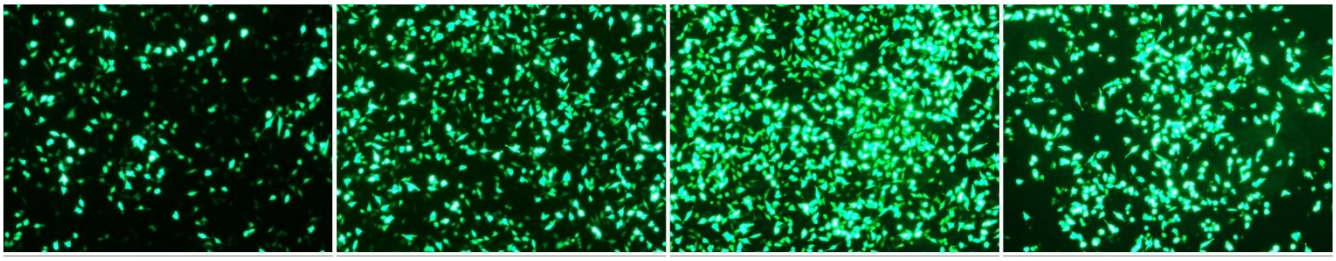
HeLaFect has been developed specifically for nucleic acids transfection into HeLa cells. This transfection reagent is serum compatible and is used for transient as well as stable transfection. This product is very stable, ready-to-use and intended for research purpose only.

HeLaFect optimization in p96-, p24- and p6-well plates

HeLaFect transfection reagent optimization in 96-, 24- and 6-well plates.
Several amounts of pVectOZ-SEAP were complexed with HeLaFect at a 2:1 ratio. After 20 min of incubation at room temperature, complexes were added onto HeLa cells in a drop wise manner. 24 h after, secreted alkaline phosphatase was measured in the cell supernatants.



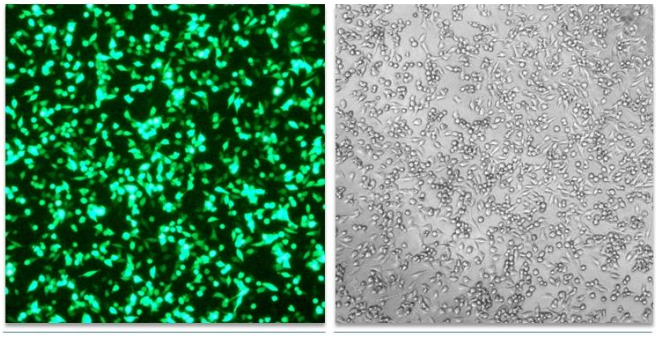
HeLaFect transfection reagent ratio optimization in 24-well plates (?).
0.5 µg of pVectOZ-GFP were complexed with HeLaFect using 4 ratios (1:1, 1.5:1, 2:1 & 3:1, respectively 1, 1.5, 2 & 3 µL of lipid per µg DNA). After 20 min of incubation at room temperature, complexes were added onto the cells in a 24-well plate in a drop wise manner. 24 h after, transfection efficiency was visualized by fluorescent microscopy.

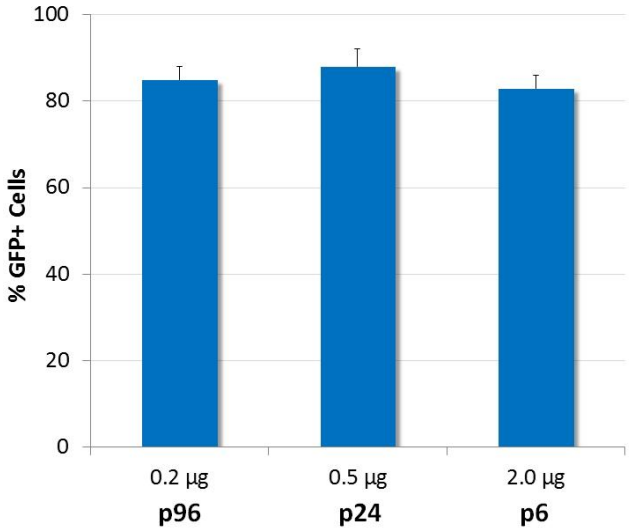


Results show the transfection efficiency optimization using (1) various DNA amounts with a fixed ratio of HeLa Fect and (2) various ratios of HeLaFect with a fixed DNA amount.

HeLaFect Efficiency

HeLaFect efficiency in HeLa cell line: more than 80% efficiency
0.2, 0.5 and 2.0 µg pVectOZ-GFP were complexed with HeLaFect at a 2:1 ratio and added to cells seeded in 96-, 24- and 6-well plates respectively. 24 h after, transfection efficiency was assessed by fluorescence microscopy and measured by FACS analysis.

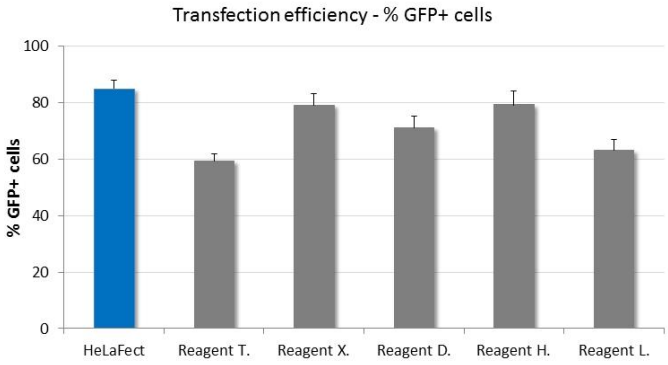


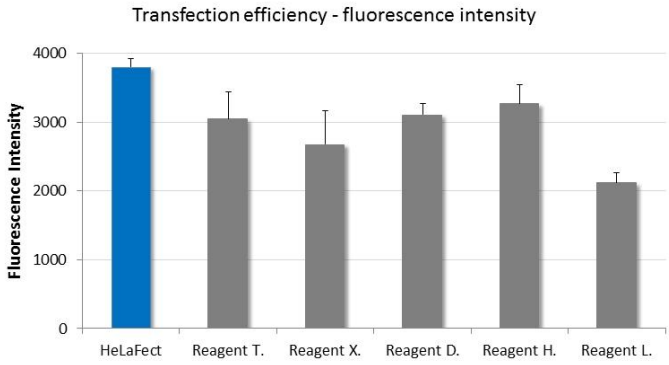


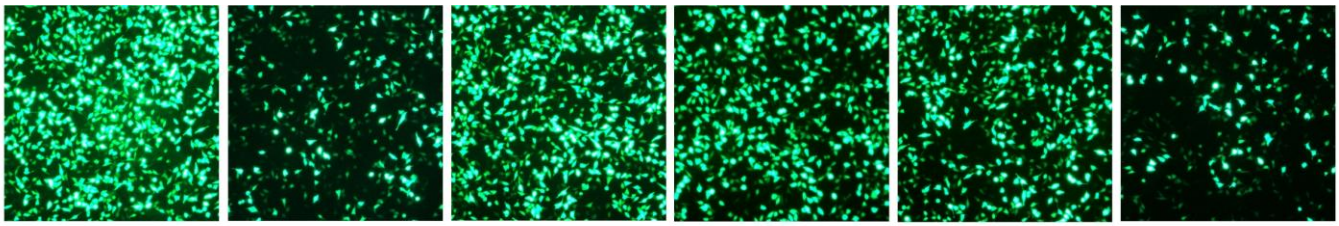
Results demonstrate that 80-90% efficiency can be reached in any cell culture format.

HeLaFect: comparison with other reagents

HeLaFect transfection reagent is highly efficient.
Complexes of DNA and HeLaFect were prepared as previously described (0.5 µg per well in a 24-well plate; ratio 2:1) and DNA transfections with other commercial transfection reagents were performed as recommended by the manufacturers. 24 h after, transfection efficiency was measured by FACS analysis and fluorescence microscopy.







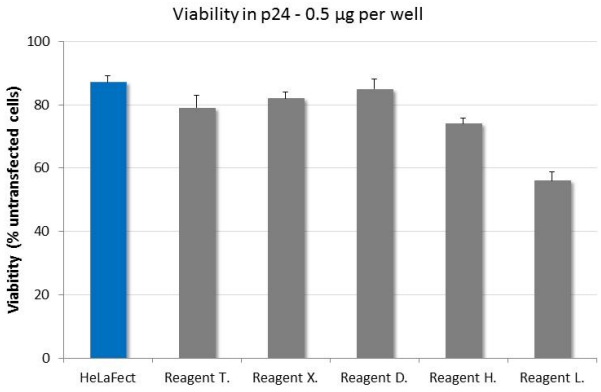
Results show that HeLaFect transfection reagent allows transfecting cells with high efficiency not only in term of percentage of transfected cells but also in terms of protein production.

HeLaFect does not hamper cell viability

HeLaFect transfection reagent is non-toxic for the cells.

Complexes of DNA and HeLaFect were prepared as previously described (0.5µg per well in a 24-well plate; ratio 2:1) and DNA transfections with other commercial transfection reagents were performed according to the manufacturers' instructions.

After 24 h transfection, HeLa cells viability was measured with the MTT cell proliferation Assay Kit (OZ Biosciences - Ref # MT01000) and compared to un-treated cells.



Results show that viability is not hampered in the transfected cells with HeLaFect.

Bibliographic references

Please consult our list of references available on the website: http://www.ozbiosciences.com.