Invigentech™

INVI DNA RNA Transfection Reagent™

CatNo:IV1216

1. Description

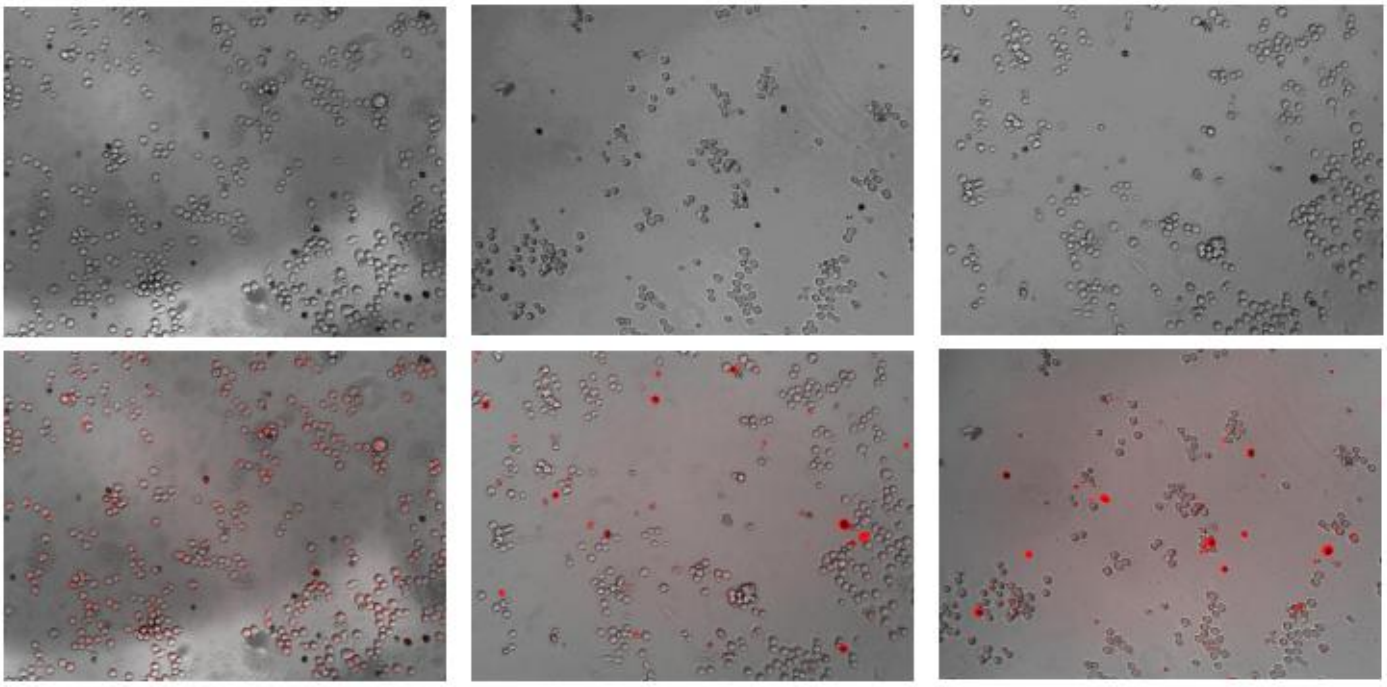
INVI DNA RNA Transfection Reagent™ is a newly developed reagent for transfection of DNA and RNA into eukaryotic cells.

Advantages:
-The highest transfection efficiency in many cell types.

-INVI DNA RNA Transfection Reagent™ can be used for DNA transfection, siRNA transfection and co-transfection of various eukaryotic cell lines.

-INVI DNA RNA Transfection Reagent™ can be used for DNA transfection, siRNA transfection in various primary cells.

INVI DNA RNA transfection reagent **Lipo3000** **Lipo2000**



M4e cells transfection

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2.Storage and Transfection Requirement

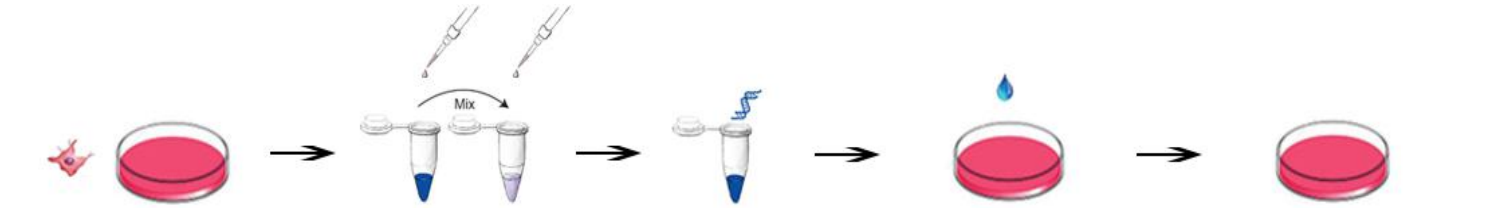
-Storage
Store at 4℃. ***DO NOT FREEZE.***

-Transfection requirement
Plasmid DNA: 200ng/ul-2ug/ul; Dissolved in ddH_2O; Endotoxin removed
siRNA: 20 uM/L

3.Transfection Procedure

A. Normal operation

1. Planting cells on the cell culture plate one day in advance, the cell confluence degree should be 60-80% at the time of transfection, and the cell state should be kept.
Transfection should be carried out in good condition.
2. Nucleic acid was directly mixed with the transfection reagent, and mixed sufficiently with transfection reagent for 10-15 times. After incubation at room temperature for 10-15 minutes, the transfection complex was prepared. During preparation of the complex, no liquid residue was ensured on the tube wall.
3. The transfection complex was added into the cells and blended gently, then put into the incubator for further culture.
4. After 24-48 hours of transfection, normal fluid exchange was performed on the cells.



B.Reverse operation

1.The nucleic acid was directly mixed with the transfection reagent, and sufficiently mixed with the transfection reagent for about 10-15 times. After incubation at room temperature for 10-15 minutes, the transfection complex was prepared. During the preparation of the composite, no liquid residue was ensured on the tube wall.

2. Cells in good condition with 60-80% convergence and transfection complex were added to the cell culture plate and gently blended, then placed in the incubator for further culture.

3. After 24-48 hours of transfection, normal fluid exchange was performed on the cells.

4.Important Guidelines

-The proportion of various nucleic acids was adjusted according to the following table and experimental requirements.
-Mix all kinds of nucleic acids before mixing with transfection reagents.
-If there is small amount of precipitation before using transfection reagent, please mix it with an oscillator without affecting the quality of product.
-Plasmid DNA must be dissolved in ddH_2O. If it is dissolved in Buffer, transfection efficiency will decrease by 70%, even lead to the failure of transfection.
-Plasmid DNA must be de-endotoxin, otherwise transfection efficiency will decrease by 70%, even lead to the failure of transfection.
-No reagent else can be used to dilute the nucleic acid or transfection reagent in the preparation of the complex, just mix them proportionally. Otherwise, transfection efficiency will decrease by 80%, even lead to the failure of transfection.
-After checking and mixing with transfection reagent, the pipette was used to blow and suck 10-15 times to mix sufficiently and ensure that there was no liquid residue in the tube wall.
-The nucleic acid was mixed with the transfection reagent and incubated at room temperature for at least 10-15 minutes.
-In the whole process of transfection experiment, cells can be cultured in complete medium instead of using serum-free medium.

-If white or black round particles were observed under the microscope after transfection, they would be materials of new transfection reagent.

Cell culture plate	Area/well（cm^2）	Medium/ well	Transfection reagent/well（ul）	Plasmid/well (ug)	siRNA/well（ul）
96-well	0.3	75 ul	0.2/0.3/0.4	0.2/0.3/0.4	0.2/0.3/0.4
48-well	1	250 ul	0.8/1/1.3	0.8/1/1.3	0.8/1/1.3
24-well	2	500 ul	1.5/2/2.5	1.5/2/2.5	1.5/2/2.5
12-well	4	2 ml	3/4/5	3/4/5	3/4/5
6-well	10	2.5 ml	7.5/10/12.5	7.5/10/12.5	7.5/10/12.5
35 mm	10	2.5 ml	7.5/10/12.5	7.5/10/12.5	7.5/10/12.5
60 mm	20	5 ml	15/20/25	15/20/25	15/20/25
100 mm	60	15 ml	45/60/75	45/60/75	45/60/75
T 25	25	6 ml	19/25/31	19/25/31	19/25/31
T 75	75	19 ml	56/75/94	56/75/94	56/75/94

5.Optimizing Transfection

-Take 24-well as an example.

Gradient 1(1.5ul transfection reagent : 1.5ug DNA/1.5ul RNA) is suitable for better transfected cells, such as HEK293T;

Gradient 2 (2ul transfection reagent : 2ug DNA/2ul RNA) is suitable for relatively difficult transfected cells, such as RAW264.7, etc.

For extremely difficult transfected cells, the actual amount of transfection should be adjusted to 2.5 ul according to the above table (2.5ul transfection reagent : 2.5ug DNA/2.5ul RNA) .
-The ratio of plasmid DNA (ug) and siRNA (ul) to transfection reagent (ul) is 1:1, and the dosage can be designed according to this ratio.
-The concentration of siRNA in the above table is 20 uM/ul, if the concentration of siRNA is 40 uM, the amount of siRNA in the above table will be reduced by half; if the concentration is 10 uM, the amount of siRNA in the above table will be doubled, and so on.

Order Information

Product	Catalog	Size
INVI DNA RNA Transfection Reagent™	IV1216025	0.25 ml
INVI DNA RNA Transfection Reagent™	IV1216050	0.50 ml
INVI DNA RNA Transfection Reagent™	IV1216075	0.75 ml
INVI DNA RNA Transfection Reagent™	IV1216100	1.00ml
INVI DNA RNA Transfection Reagent™	IV1216150	1.50 ml
INVI DNA RNA Transfection Reagent™	IV1216300	3.00 ml

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