

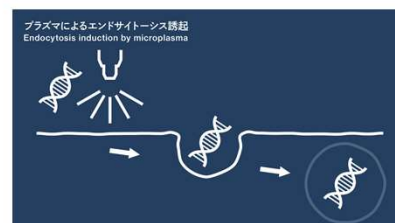
Microplasma Gene / molecular Delivery System

# LINACYTE 3MC



**High costs? Low efficiency?  
Slow results? Toxic to cells?  
We've got the solution.**

Microplasma molecular introduction is a new technology in which endocytosis is induced by irradiating a mixture of cells and DNA or other molecules with microplasma, resulting in the uptake of genes and proteins into the cells. LINACYTE 3MC works by activating the cells' ability to take up external substances with microplasma, thereby allowing genes and proteins to be taken up into the cells. As a result, it is extremely safe, and unlike conventional methods, it is expected to contribute to the expansion of applications and accelerated development in industries related to medicine, beauty, and food.



Principle of LINACYTE 3MC molecular introduction



Atmospheric pressure microplasma irradiation

## LINACYTE 3MC Features

### Plasma-Driven Molecular Delivery Mechanism of Linacyte 3MC A Unique Mechanism of Gene Uptake by Cells

#### 01 Delivery efficiency

up to **92 %**

\*Delivery efficiency, etc., varies depending on cell type and experimental conditions.



#### 02 Risk of random integration

up to **1/97** 

#### 03 Less than **\$0.15** per well



#### 04 The Process takes about **13 min**



## Comparison with conventional methods

	plasma	Commonly used gene introduction methods		
		Viral vector	Lipofection	Electroporation
Efficiency	High	High	High~Low	High~Low
Cytotoxicity	Low	Low	Mid	High
Operability	Easy	Standard	Easy	Easy
Side effect	Low	Mid	Unknow	Mid
Cell type	Over 70 types of cells. Include blood cells and Primary cultures cells.	Restricted by virus	Low efficiency with blood cells and primary cultured cells	Low efficiency with blood cells and primary cultured cells
etc	Compleat in a short time	P2 level or higher equipment required	High cytotoxicity, expensive reagents	Large amount of cells required, expensive reagents and equipment

## List of Transfected Cells

Yellow: Epithelium

Blue: Floating

Red: Fibroblast

Green: Neuroblast

Purple: Primary, Stem cells, Others

No.	Cell name	Origin	Tissue of origin	No.	Cell name	Origin	Tissue of origin	No.	Cell name	Origin	Tissue of origin
1	HepG2	Human	Liver	20	BJAB	Human	Peripheral blood	39	COLO201	Human	Colon
2	HuH7	Human	Liver	21	Jurkat	Human	Peripheral blood	40	Hu09	Human	Bone
3	FLS3	Mouse	Liver (Fetus)	22	K562	Human	Peripheral blood	41	MBT2	Human	Bone
4	L alpha	Mouse	Connective tissue	23	MOLT-4	Human	Peripheral blood	42	PC-12	Rat	Adrenal gland
5	MG-63	Human	Bone	24	THP-1	Human	Monocyte	43	GOTO	Human	Nerve
6	Hela	Human	Uterus	25	RAW	Human	Monocyte	44	SH SY5Y	Human	Nerve
7	MDCK	Dog	Kidney	26	U937	Human	Monocyte	45	Fibroblast	Human	Skin
8	HEK293	Human	Kidney (Fetus)	27	TK6	Human	Blood cell, Lymphoid system	46	HDF	Human	Skin
9	HSC-3	Human	Tongue	28	EOL-1	Human	Eosinophil	47	NHEM	Human	Melanocyte
10	SAS	Human	Tongue	29	L6	Rat	Muscle tissue	48	Huvec	Human	Endothelial cell
11	CaCo-2	Human	Colon	30	L	Mouse	Connective tissue	49	Tic	Human	iPS cells
12	A375	Human	Skin	31	L-929	Mouse	Connective tissue	50	ACS	Human	Adipose stem cells
13	G361	Human	Skin	32	COS-7	Green monkey	Kidney	51	HaCaT	Human	Skin keratinocytes
14	HSC-5	Human	Skin	33	3T3L1	Mouse	Fetus	52	Astrocytes	Human	iPS cells
15	CHO-K1	Hamster	Ovary	34	NIH 3T3	Mouse	Fetus	53	Neurons	Human	iPS cells
16	DD762	Mouse	Mammary gland	35	SF-TY	Human	Lung	54	Nerve cell	Rat	Nerves
17	HCC1937	Human	Mammary gland	36	SF-TY	Human	Skin	55	MS5	Mouse	Bone marrow stromal cells
18	PANC-1	Human	Pancreas	37	Mewo	Human	Dermal lymph node				
19	T24	Human	Bladder	38	MC3T3-E1	Mouse	Mouse skull				

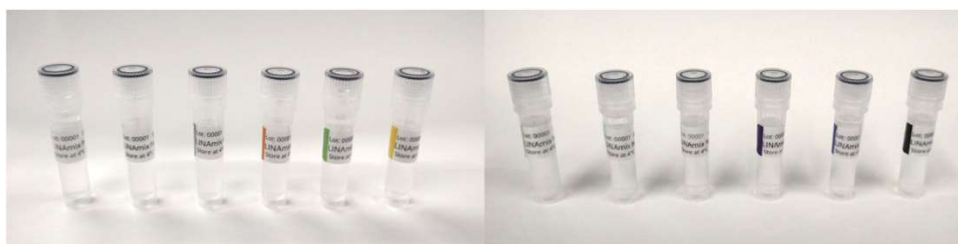
## Product specifications

Dimensions	360mm(D)×340mm(W)×260mm(H)
Weight	~9.8kg
Japan	100V, 50/60Hz 11W
Overseas	100-240V, 50/60Hz 11W
Plates	96-well MTP
Cells	Animal cells (Include blood cells and primary cultured cells.), etc.
Number of cell / A process	3 million cells / plate (depending on cell type)
Patent	Patent No. 6189019



## Accessories

- LINAMix Buffer OptKit
- LINAMix Buffer  
Optimized mixing buffer for gene/molecule uptake
- 96-well Plates



※Image

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※Product specifications are subject to change without notice.