

CELL BIOLOGY

Product Series

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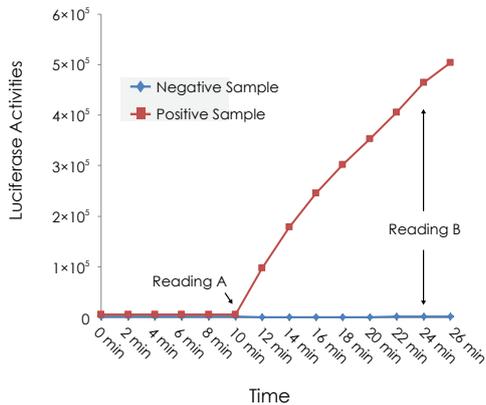
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Mycoplasma Detection

TransDetect[®] Luciferase Mycoplasma Detection Kit

This product is designed using an enzyme unique to mycoplasma. This enzyme degrades MycoDetect Substrate and converts ADP to ATP. Luciferase catalyzes the oxidation of luciferin to produce bioluminescence in the presence of ATP. Cell cultures can be characterized for the presence of mycoplasma contamination by detecting bioluminescence. As this assay can only detect bioactive mycoplasma, the results will be more accurate than that of the PCR assay. The method has high sensitivity, simple operation and time saving.



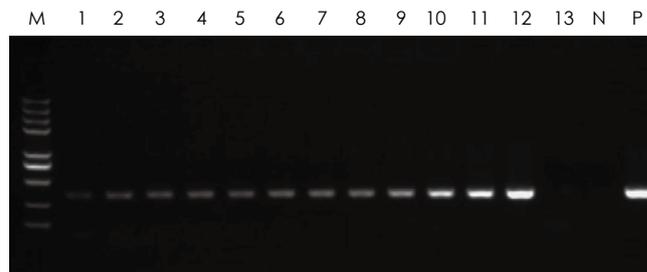
	TransGen	Company L
Original sample	+	+
1:5 dilution	+	+
1:25 dilution	+	+
1:125 dilution	+	+/-
1:625 dilution	+/-	-
1:3125 dilution	-	-
Negative control	-	-

+ Sample contaminated with mycoplasma
 +/- Need to check and verify
 - Samples not contaminated with mycoplasma

TransDetect[®] PCR Mycoplasma Detection Kit

This product detects the presence of mycoplasma contamination in biological materials such as cultured cells by PCR method. Highly specific primers have been designed to amplify a fragment of 16S rRNA coding DNA that is conserved across all commonly-known mycoplasma species. The kit includes an optimized supermix and primer, ultrapure water and positive control template. Using this kit, cell culture supernatants can be tested directly without DNA extraction. The kit provides a very easy to use, simple, fast (within 2 hours), specific and sensitive PCR-based mycoplasma detection method.

- ★ High sensitivity: Able to detect as low as 20 copies of mycoplasma genome.
- ★ High specificity: Only detect mycoplasma DNA, not eukaryotic and bacterial DNA.
- ★ Easy to use, no need to extract genomic DNA, suitable for the detection of a large number of cell samples.
- ★ Positive control and negative control to ensure the accuracy of PCR test results.



Mycoplasma PCR detection sensitivity

M: Trans2K[®] Plus II DNA Marker

1: 20 拷贝支原体 DNA

2: 100 拷贝支原体 DNA

3: 1:1000 diluted cell culture medium

4: 1:800 diluted cell culture medium

5: 1:400 diluted cell culture medium

6: 1:200 diluted cell culture medium

7: 1:100 diluted cell culture medium

8: 1:50 diluted cell culture medium

9 : 1:20 diluted cell culture medium

10: 1:10 diluted cell culture medium

11: 1:5 diluted cell culture medium

12: Undiluted cell culture medium

13: Diluent

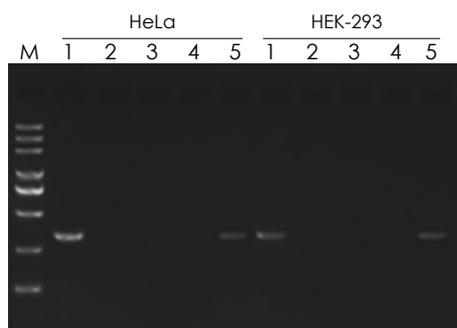
N : Negative control

P : Positive control

TransSafe™ Mycoplasma Elimination Reagent (TransMyco-1+2) TransSafe™ Mycoplasma Elimination Reagent (TransMyco-3)

TransSafe™ Mycoplasma Elimination Reagent (TransMyco-1+2) contains two different and effective anti-mycoplasma components, namely the macrolide antibiotic TransMyco-1 and the tetracycline derivative antibiotic TransMyco-2, which can effectively interfere with the protein expression of mycoplasma. The sequential joint use of these two antibiotic reagents can eliminate mycoplasma contamination effectively, and with the advantages of low concentration and low cytotoxicity. TransSafe™ Mycoplasma Elimination Reagent (TransMyco-3) belongs to fluoroquinolone antibiotic, a broad-spectrum antibiotic that effectively interferes with DNA replication in mycoplasma. This product can eliminate mycoplasma contamination effectively and with advantages of low concentration and low cytotoxicity.

- ★ High mycoplasma removal efficiency.
- ★ Active at low working concentration. Low cytotoxicity. Suitable for a wide range of cell types.
- ★ Easy to use. Add to the culture medium directly.

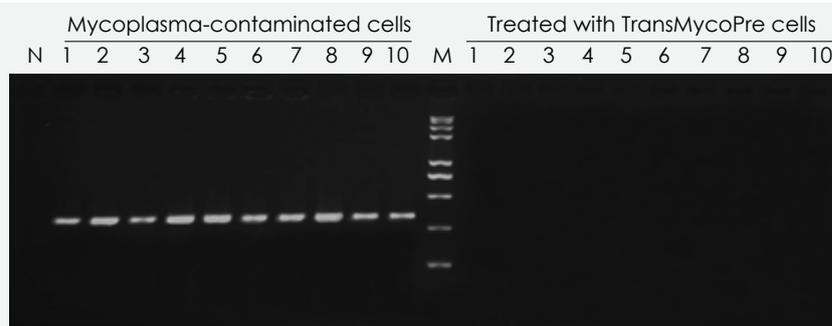


M: Trans2K® Plus II DNA Marker
1: untreated cells
2: Cells treated with TransMyco-1+2
3: Cells treated with Company I products
4: Cells treated with TransMyco-3
5: Cells treated with Company B products

TransSafe™ Mycoplasma Prevention Reagent

This product is a mixture of three mycoplasma antibiotics including macrolides, tetracyclines and fluoroquinolone derivatives, which can effectively interfere with protein expression and DNA replication of mycoplasma. This product can effectively prevent mycoplasma contamination during cell culture process, and can also prevent common gram-positive and gram-negative bacteria. It can be used as a better substitute of common penicillin and streptomycin antibiotics in daily cell culture, with low concentration and almost no cytotoxicity.

- ★ Maximum preventive effect on mycoplasma contamination .
- ★ Active at low working concentration and low cytotoxicity, suitable for a wide range of cell types.
- ★ Easy to use. Add to the culture medium directly.
- ★ An alternative with wide range of effects to the prevention of common gram-positive and gram-negative b



M: Trans2K® Plus II DNA Marker
N: Negative control
1: HeLa
2: HEK-293
3: Hep G2
4: MCF-7
5: A549
6: K562
7: SP2/O
8: CHO
9: BHK-21
10: Neuro-2a

Product Name	Cat. No.	Specification
TransDetect® Luciferase Mycoplasma Detection Kit	FM301-01	25 rxns
	FM301-02	50 rxns
TransDetect® PCR Mycoplasma Detection Kit	FM311-01	100 rxns
TransSafe™ Mycoplasma Elimination Reagent (TransMyco-1+2)	FM401-01	10 ml
	FM401-02	20 ml
TransSafe™ Mycoplasma Elimination Reagent (TransMyco-3)	FM411-01	10 ml
	FM411-02	20 ml
TransSafe™ Mycoplasma Prevention Reagent	FM501-01	1 ml
	FM501-02	5×1 ml

Cell Culture and Transfection

TransSerum® EQ Fetal Bovine Serum

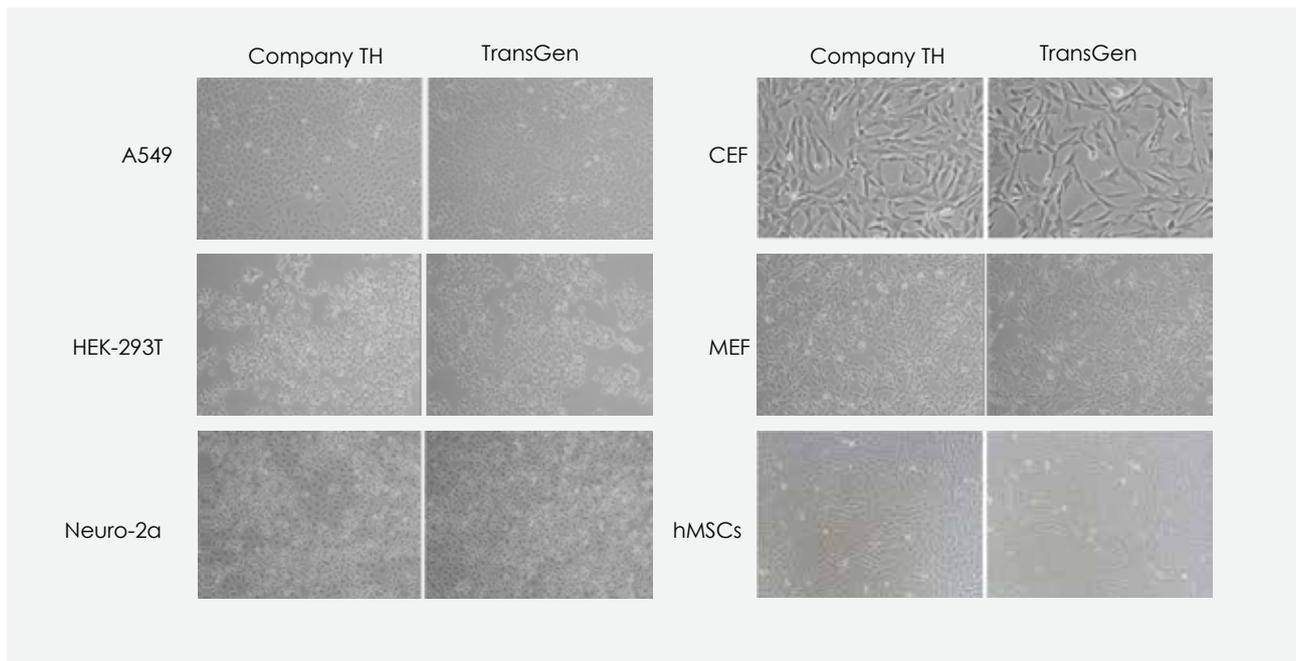
(Australian healthy fetal bovine blood is used as raw material.)

- ★ No mycoplasma pollution, extremely low endotoxin levels.
- ★ The cultured cells grow rapidly, the doubling time is short, and high cloning rate .

Successfully cultured cell types with TransSerum® EQ Fetal Bovine Serum

5637	CEK	HEK-293T	Marc 145	OV45	Sp2/0
7721	CHO-K1	HeLa	MCF7	P815	STO
A2780	COS-1	Hep G2	MDA-MB-231	PANC-1	SW480
A549	COS-7	HL-60	MEF	PC-12	SW620
B16-F10	DF-1	HT-29	MGC803	PK15	T24
BEL-7402	DLD-1	hUC-MSC	MIA PaCa-2	PT67	TE-1
BHK21	EC109	Huh7	MKN-28	RAW264.7	THP-1
BGC-823	EJ	HUVEC	MKN-45	Sf9	U87
C3H/10T1/2	GLC-82	Jurkat	MRC-5	SGC-7901	U937
C6	H9c2	K-562	Neuro-2a	SH-SY5Y	Vero
Caco-2	HCT 116	L929	NIH3T3	SMMC-7721	WEHI-3B
CEF	HEK-293	LS 174T	NRK	SK-OV-3	WI38

TransSerum® EQ Fetal Bovine Serum on different cell cultures

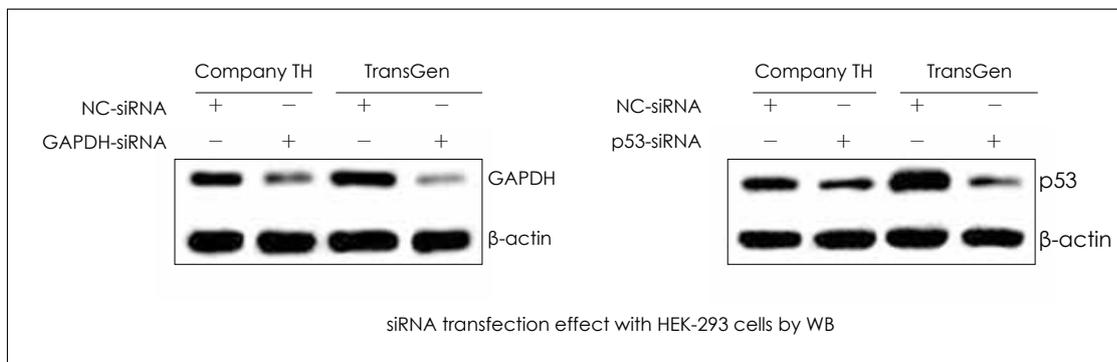
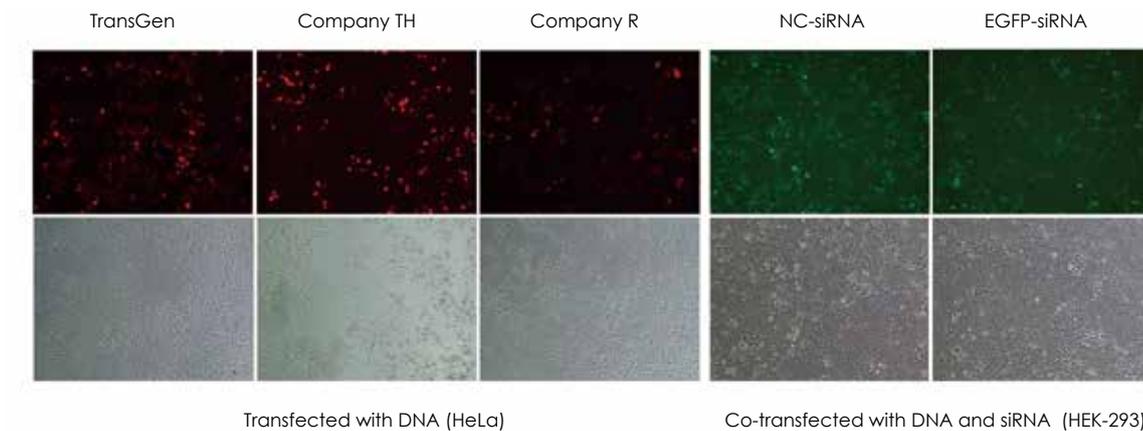


TransIntro™ EL Transfection Reagent

- ★ High transfection efficiency: Improve the transfection efficiency of a variety of difficult-to-transfect cells.
- ★ Low cytotoxicity: Minimum effect on cellular physiological processes.
- ★ Simple operation: No need to change the medium after transfection, tolerance with serum and antibiotics.
- ★ Wide range of applications: Applicable for both DNA and RNA.

Successfully transfected cell types with TransIntro™ EL Transfection Reagent

A549	COS-1	Hep G2	MEF	PANC-1
B16-F10	DLD-1	HL-60	MIA PaCa-2	PT67
BHK-21	HCT-116	K562	Neuro-2a	SGC-7901
BTC	HEK-293	L929	NIH/3T3	SH-SY5Y
C2C12	HEK-293T	MARC-145	NRK	STO
CEF	HeLa	MCF-7	P815	Vero
CHO				

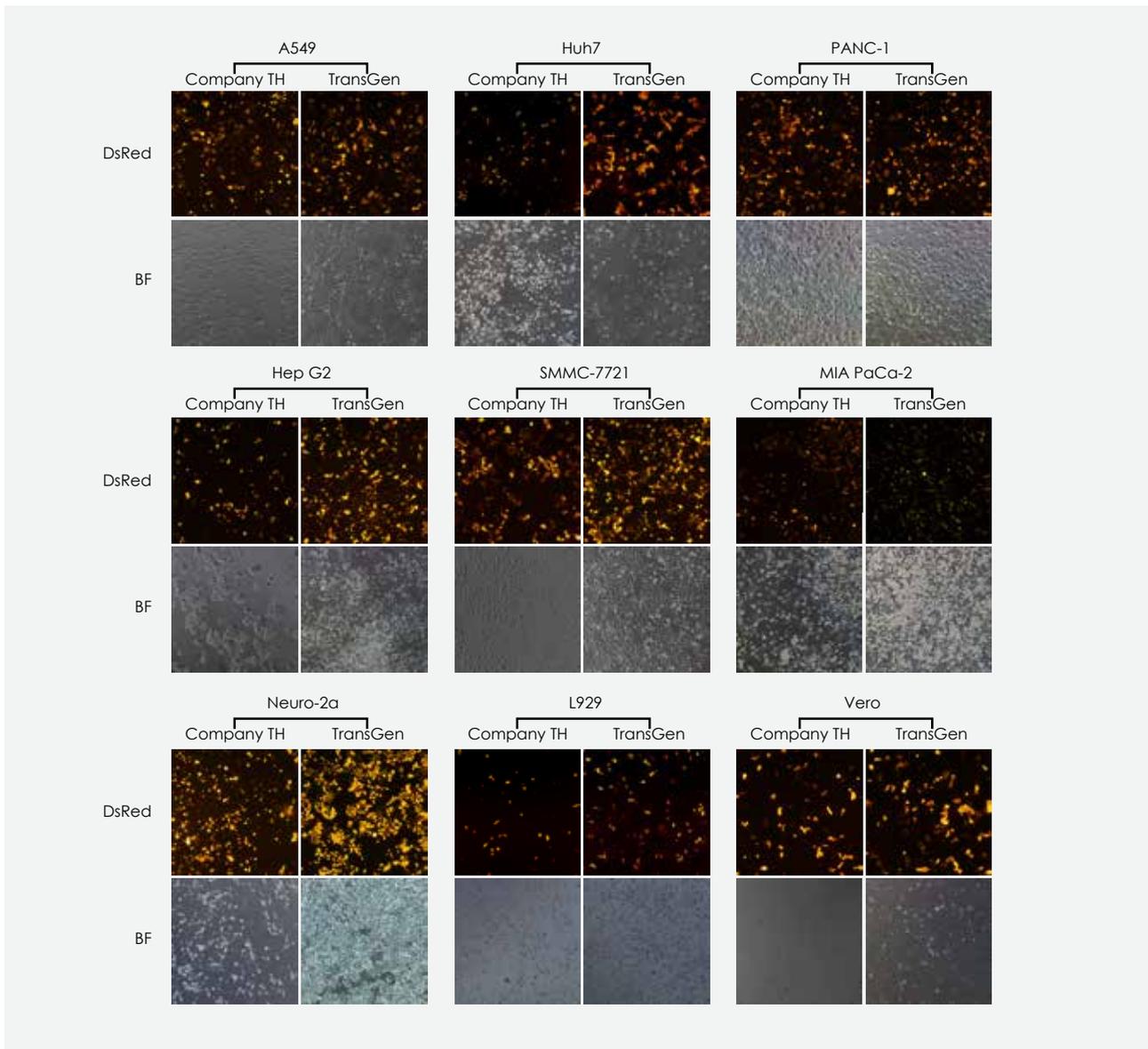


TransIntro™ PL Transfection Reagent

- ★ Highly efficient and stable transfection for tumor cell lines, such as lung cancer, colorectal cancer, liver cancer, pancreatic cancer, facilitating to establish stable and reliable cell models.
- ★ Low cytotoxicity and minimum effect on cellular physiological processes.
- ★ Tolerance with antibiotics.

Successfully transfected cell types with TransIntro™ PL Transfection Reagent

Tumor cell lines			Neural cell lines	Other cell lines	
A549	HCT 116	MCF7	Neuro-2a	BHK21	NIH3T3
B16-F10	Huh7	MIA PaCa-2	SH-SY5Y	CHO	Vero
DLD-1	HT-29	PANC-1	products series	HEK-293	L929
HeLa	SGC-7901	SMMC-7721	HUVEC	HEK-293T	Marc 145
Hep G2	SW480		MEF	BTC	



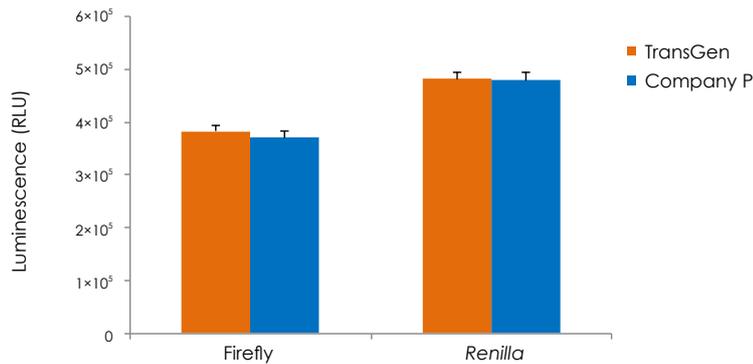
Product Name	Cat. No.	Specification
TransSerum® EQ Fetal Bovine Serum	FS201-02	500 ml
TransIntro™ EL Transfection Reagent	FT201-01	0.75 ml
	FT201-02	2×0.75 ml
TransIntro™ PL Transfection Reagent	FT301-01	0.75 ml
	FT301-02	2×0.75 ml
TransIntro™ EL/PL Transfection Reagent	FT231-02	0.75 ml+0.75 ml

Cell Detection

TransDetect® Single-Luciferase Reporter Assay Kit TransDetect® Double-Luciferase Reporter Assay Kit

The activity of firefly luciferase reporter is detected by bioluminescent reaction with beetle luciferin as substrate while that of Renilla luciferase is detected by bioluminescent reaction with coelenterate-luciferin.

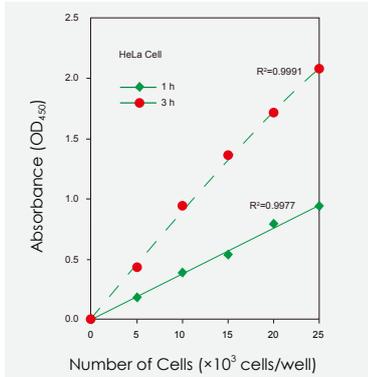
- ★ Rapid detection.
- ★ High sensitivity.
- ★ Broad range.
- ★ Free interference from cell endogenous activity.



TransDetect® Cell Counting Kit (CCK)

- ★ Fast detection and High sensitivity.
- ★ Lower cytotoxicity.
- ★ Broad detection range.
- ★ Good stability and high repeatability.

CCK sensitivity test



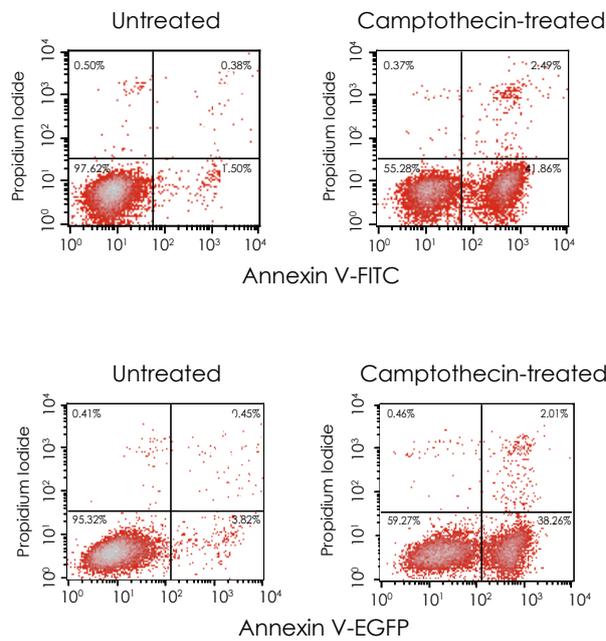
CCK demonstrates minimal cytotoxicity



TransDetect® Annexin V-FITC/PI Cell Apoptosis Detection Kit

TransDetect® Annexin V-EGFP/PI Cell Apoptosis Detection Kit

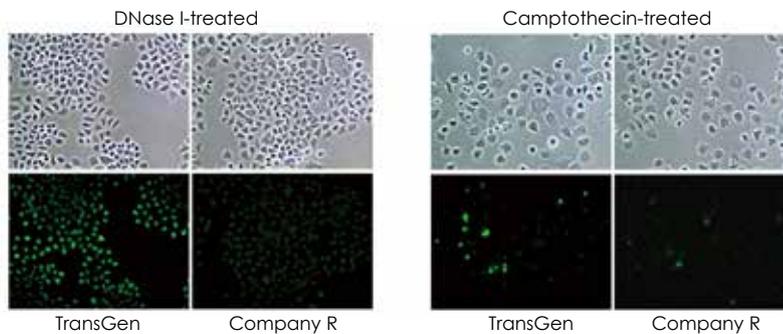
- ★ With AnnexinV-FITC/EGFP as a probe, apoptotic adherent cells and suspension cells can be detected by flow cytometry or fluorescence microscopy.
- ★ The combination of Annexin V-FITC/EGFP and PI staining allows differentiation among different stages of apoptotic cells.



Flow cytometry results of apoptosis in Jurkat T lymphoma cells induced by Camptothecin

TransDetect® In Situ Fluorescein TUNEL Cell Apoptosis Detection Kit

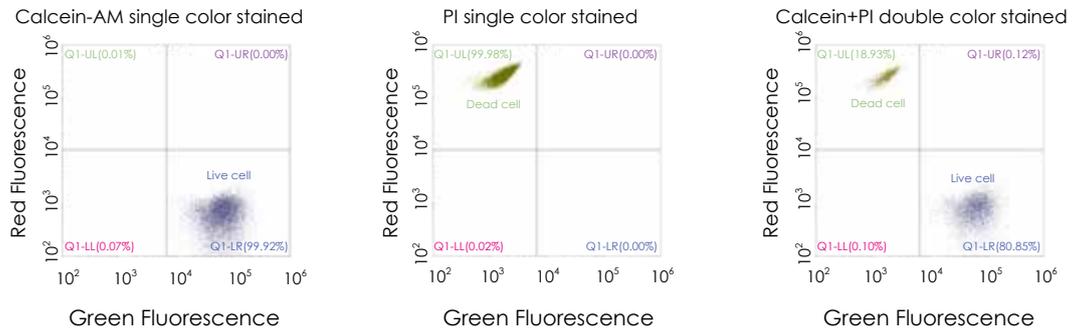
- ★ Extremely low toxicity.
- ★ High sensitivity and specificity.
- ★ Easy to operate.
- ★ Wide application range and flexible detection method.



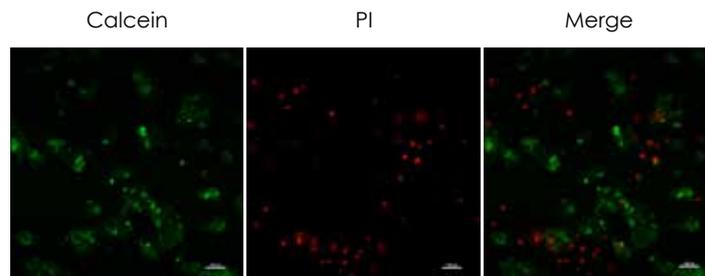
Fluorescence microscopy results of apoptosis in HeLa cells after treatment with DNase I and inducing by Camptothecin

TransDetect[®] Cell LIVE/DEAD Viability/Cytotoxicity Detection Kit

- ★ Higher specificity.
- ★ More simplicity.
- ★ Lower cytotoxicity.



The HeLa living cells and the fixed permeabilized dead cells were mixed at a ratio of 4:1, and the results were analyzed by flow cytometry after double staining.



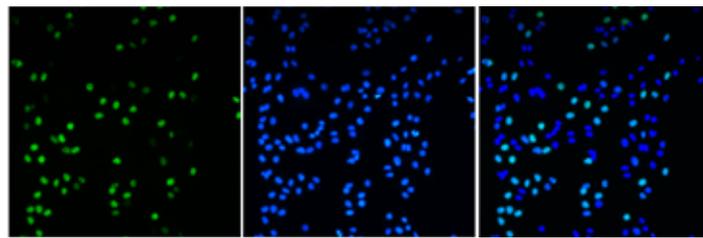
Fluorescence microscopy results of double stained Hep G2 cells

TransDetect[®] EdU Imaging Kits

The kit employs a nucleoside analog to thymidine-EdU (5-ethynyl-2'-deoxyuridine) for detection of cell proliferation ability. During DNA replication, EdU can be inserted into the newly synthesized DNA double-stranded structure, followed by labeling with fluorophores by click reaction. Cell proliferation ability is detected by this rapid and sensitive method which demonstrates the activity of DNA replication in the S phase of the cell cycle based on fluorescence intensity. Compared with traditional BrdU detection method, it is easy to operate, saving from additional steps such as antibody labeling, and has high sensitivity and specificity, suitable for experiments such as drug screening, cell proliferation assay, and cytotoxicity assay.

- ★ Easy to operate, no antibodies required.
- ★ High sensitivity and specificity.
- ★ Wide range of applications.

Fluorescence imaging results of cell proliferation detected by different fluorophores

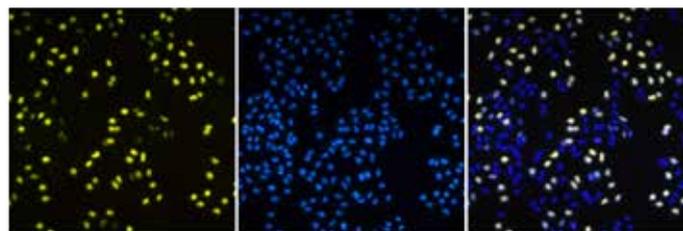


488 Fluorophore

Hoechst

Merge

Fluorescence imaging results of detection of proliferation of A549 cells by TransDetect[®] EdU Detection Kit-488 Fluorophore

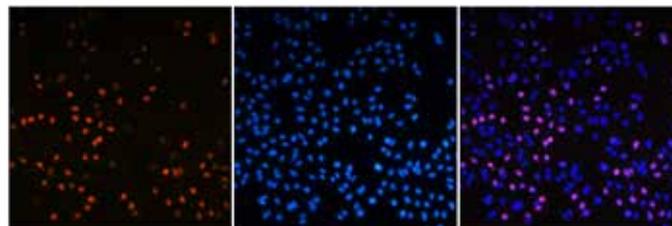


555 Fluorophore

Hoechst

Merge

Fluorescence imaging results of detection of proliferation of A549 cells by TransDetect[®] EdU Detection Kit-555 Fluorophore

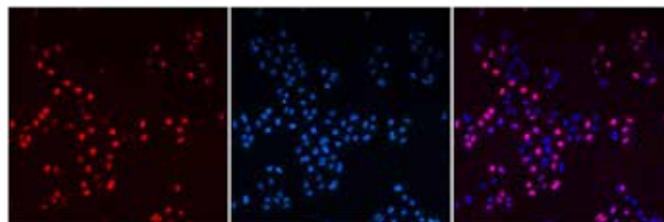


594 Fluorophore

Hoechst

Merge

TransDetect[®] EdU Flow Cytometry Kit-594 Fluorophore detects the flow results of A549 cell proliferation



647 Fluorophore

Hoechst

Merge

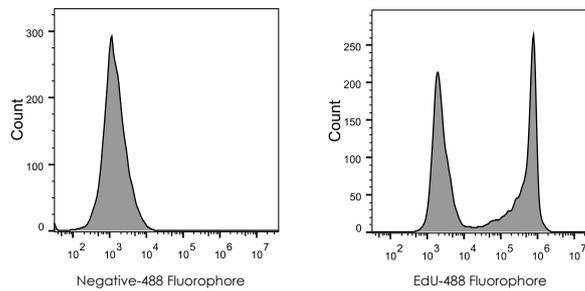
Fluorescence imaging results of detection of proliferation of A549 cells by TransDetect[®] EdU Detection Kit-647 Fluorophore

TransDetect[®] EdU Flow Cytometry Kits

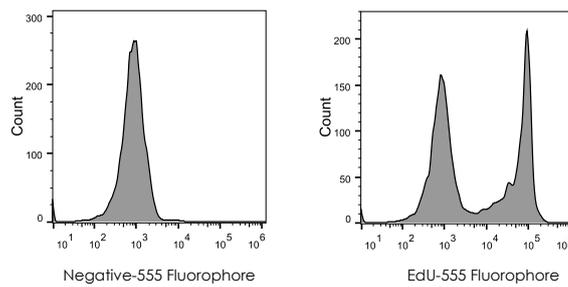
The kit employs a nucleoside analog to thymidine-EdU(5-ethynyl-2'-deoxyuridine) for detection of cell proliferation ability. During DNA replication, EdU can be inserted into the newly synthesized DNA double-stranded structure, followed by labeling with fluorophores by clickreaction. Cell proliferation ability is detected by this rapid and sensitive method based on flow cytometry which demonstrates the activity of DNA replication in the S phase of the cell cycle. Compared with traditional BrdU detection method, it is easy to operate, saving from additional steps such as antibody labeling, and has high sensitivity and specificity, suitable for experiments such as drug screening, cell proliferation assay, and cytotoxicity assay.

- ★ Easy-to-use, no antibodies required.
- ★ High sensitivity and specificity.
- ★ Wide range of applications.

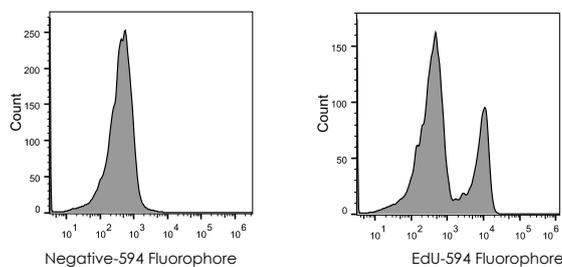
Flow cytometry results for detection of cell proliferation by different fluorophores



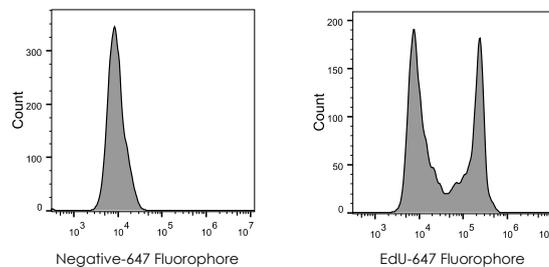
Flow cytometry results for A549 cell proliferation by *TransDetect*[®] EdU Flow Cytometry Kit-488 Fluorophore



Flow cytometry results for A549 cell proliferation by *TransDetect*[®] EdU Flow Cytometry Kit-555 Fluorophore



Flow cytometry results for A549 cell proliferation by *TransDetect*[®] EdU Flow Cytometry Kit-594 Fluorophore



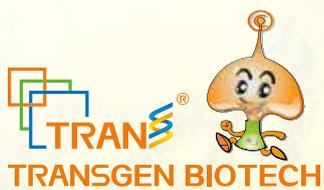
Flow cytometry results for A549 cell proliferation by *TransDetect*[®] EdU Flow Cytometry Kit-647 Fluorophore

Some articles published using the Cell Detection Series

Peng Li, *et al.* Aicardi–Gouti`eres syndrome protein TREX1 suppresses L1 and maintains genome integrity through exonuclease-independent ORF1p depletion. **Nucleic Acids Research** 2017 (Institute of Virology and AIDS Research, First Hospital of Jilin University, Changchun, Jilin)

Products used: *TransDetect*[®] Cell Counting Kit (CCK), [IF=9.202].

Product Name	Cat. No.	Specification
<i>TransDetect</i> [®] Single-Luciferase (Firefly) Reporter Assay Kit	FR101-01	50 rxns
	FR101-02	200 rxns
<i>TransDetect</i> [®] Single-Luciferase (<i>Renilla</i>) Reporter Assay Kit	FR111-01	50 rxns
	FR111-02	200 rxns
<i>TransDetect</i> [®] Double-Luciferase Reporter Assay Kit	FR201-01	50 rxns
	FR201-02	200 rxns
<i>TransDetect</i> [®] Cell Counting Kit (CCK)	FC101-01	1 ml
	FC101-02	5 ml
	FC101-03	2×5 ml
	FC101-04	6×5 ml
<i>TransDetect</i> [®] Annexin V-FITC/PI Cell Apoptosis Detection Kit	FA101-01	25 rxns
	FA101-02	50 rxns
<i>TransDetect</i> [®] Annexin V-EGFP/PI Cell Apoptosis Detection Kit	FA111-01	25 rxns
	FA111-02	50 rxns
<i>TransDetect</i> [®] <i>In Situ</i> Fluorescein TUNEL Apoptosis Detection Kit	FA201-01	25 rxns
	FA201-02	50 rxns
<i>TransDetect</i> [®] Cell LIVE/DEAD Viability/Cytotoxicity Detection Kit	FC301-01	100 rxns
<i>TransDetect</i> [®] EdU Imaging Kit-488 Fluorophore	FU101-01	50 rxns
<i>TransDetect</i> [®] EdU Imaging Kit-555 Fluorophore	FU111-01	50 rxns
<i>TransDetect</i> [®] EdU Imaging Kit-594 Fluorophore	FU121-01	50 rxns
<i>TransDetect</i> [®] EdU Imaging Kit-647 Fluorophore	FU131-01	50 rxns
<i>TransDetect</i> [®] EdU Flow Cytometry Kit-488 Fluorophore	FU201-01	50 rxns
<i>TransDetect</i> [®] EdU Flow Cytometry Kit-555 Fluorophore	FU211-01	50 rxns
<i>TransDetect</i> [®] EdU Flow Cytometry Kit-594 Fluorophore	FU221-01	50 rxns
<i>TransDetect</i> [®] EdU Flow Cytometry Kit-647 Fluorophore	FU231-01	50 rxns



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