



Cell Culture & Viability Assay

Standardized preparation, triple-filtered | Strict quality control, product stability
Carefully optimized, long-term tested | Easy operation, quick to master

POWERFUL AID FOR CELL CULTURE

Cell culture medium contains a range of essential nutrients (e.g., amino acids, vitamins, minerals, sugars, growth factors) to support cell growth and function. It can be formulated to regulate environmental conditions in cell culture and other biological experimental applications.

MCE provides a variety of products including serum, trypsin, PBS, basal media, mycoplasma removal reagents) to create a "warm home" for your cells.

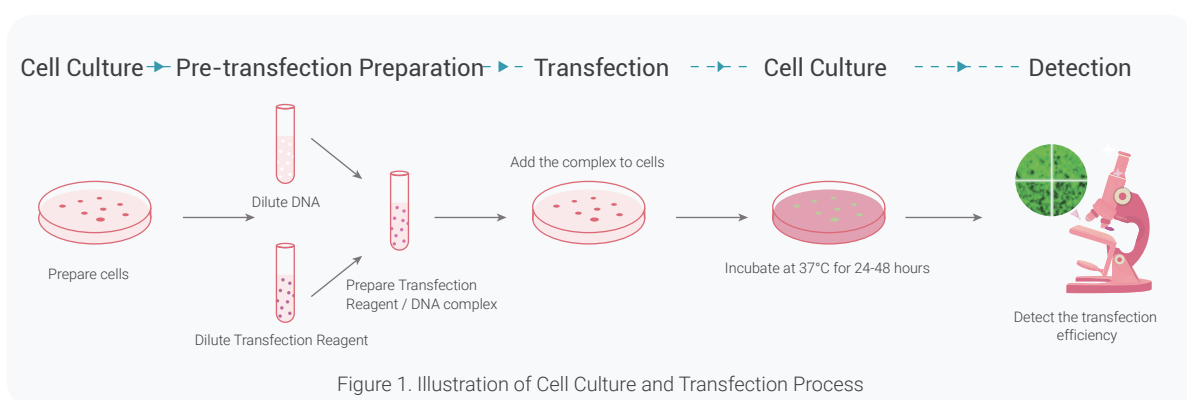


Figure 1. Illustration of Cell Culture and Transfection Process

Cat. No.	Product Name	Cat. No.	Product Name
HY-K3001	DMEM (High Glucose, L-Glutamine, Pyruvate, Phenol Red, no HEPES)	HY-K3002	DMEM/F-12 (1:1), L-Glutamine, Phenol Red, HEPES
HY-K3003	DMEM (Low Glucose, L-Glutamine, Pyruvate, Phenol Red, no HEPES)	HY-K3004	RPMI 1640 (L-Glutamine, Phenol Red, no HEPES)
HY-K3011	MEM Non-essential Amino Acid Solution (100x)	HY-K1012	Serum/Protein-Free Cell Freezing Medium
HY-K3008	DPBS Buffer (1x)	HY-K3007	0.25% Trypsin-EDTA (1x), phenol red
HY-K1059	BM-Cyclin	HY-K1014	PolyFast Transfection Reagent
HY-K2014	PEI Transfection Reagent	HY-K1050	Gentamicin, Sterile
HY-K1054	Blasticidin S, Sterile	HY-K1057	Puromycin, Sterile
HY-K1051	Hygromycin B, Sterile	HY-K2015	Lentivirus Transfection Reagent
HY-K3005	PBS Buffer (1x)	HY-K2016	Protein Transfection Reagent
HY-K3006	PBS Buffer (10x)	HY-K2017	siRNA/miRNA Transfection Reagent

CELL MONITORING MASTER

Cell viability reflects the health status of cells in culture under certain conditions. A wide range of assays are used as indicators to determine cell viability in vitro. The most common indicators for cell viability assays include cell membrane permeability, metabolic activity, and membrane potential, etc.

CCK8 is widely utilized as a fast and highly sensitive assay for cell proliferation and cytotoxicity. The principle resides in the reduction of WST-8 by certain mitochondrial dehydrogenases within the viable cells which can be quantified by an orange-colored formazan accumulation in the presence of an electron-coupling reagent.

The Lactate Dehydrogenase (LDH) Assay Kit is designed for the quantitative measurement of LDH released from cytoplasm when the cell membrane is damaged.

Principle: Under the action of LDH, lactate is oxidized into pyruvate. NADH and INT are catalyzed to NAD⁺ and Formazan.

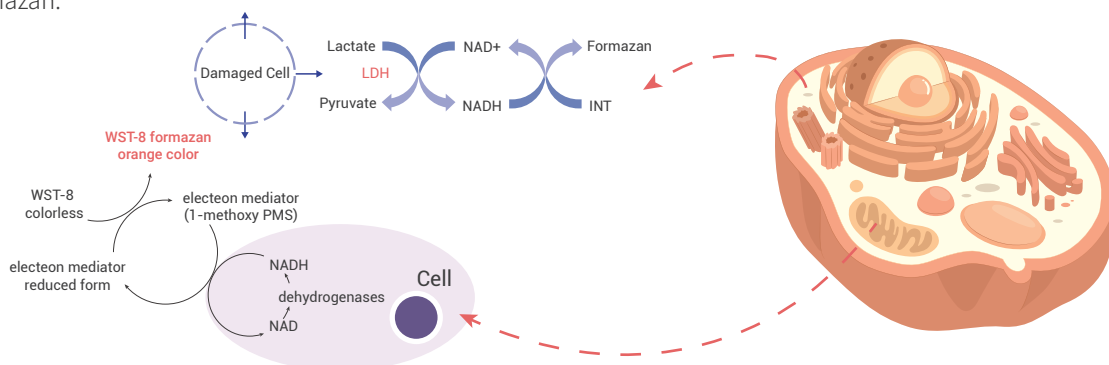


Figure 2. Schematic of Cell Viability Detection

Cat. No.	Product Name	Wavelength	Detection Instrument
HY-K0301	Cell Counting Kit-8Cell-ATP	450 nm	Microplate Reader
HY-K0302	Viability Detection Kit	/	Microplate Reader
HY-K1090	Cytotoxicity LDH Assay Kit	490 nm	Microplate Reader
HY-K1084	VF 647 Click-iT EdU Universal Cell Proliferation Detection Kit	Ex: 650 nm Em: 670 nm	Confocal laser scanning microscope, Flow cytometer, Fluorescence Microscopy
HY-K1085	VF 594 Click-iT EdU Universal Cell Proliferation Detection Kit	Ex: 590 nm Em: 617 nm	Confocal laser scanning microscope, Flow cytometer, Fluorescence Microscopy
HY-K1086	HY-K1086 VF 555 Click-iT EdU Universal Cell Proliferation Detection Kit	Ex: 555 nm Em: 565 nm	Confocal laser scanning microscope, Flow cytometer, Fluorescence Microscopy
HY-K1087	VF 488 Click-iT EdU Universal Cell Proliferation Detection Kit	Ex: 495 nm Em: 519 nm	Confocal laser scanning microscope, Flow cytometer, Fluorescence Microscopy

ADVANTAGES

Excellent batch-to-batch stability

Cell Line: HL60

Culture Condition: DMEM (HY-K3001) + 10% FBS

Testing Condition: CCK-8 (HY-K0301), incubate for 2 hours, detect with OD450;

Test Results: The product shows minor batch differences, ensuring stable and reliable performance.

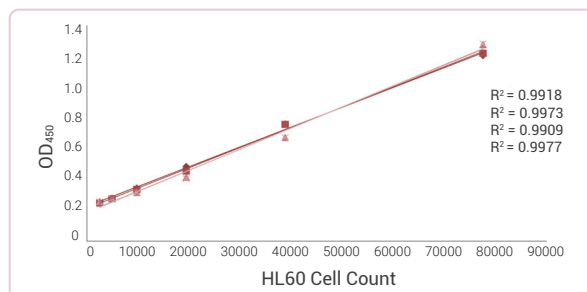


Figure 3. CCK-8 Batch Stability Testing

Stable Signal with High Sensitivity

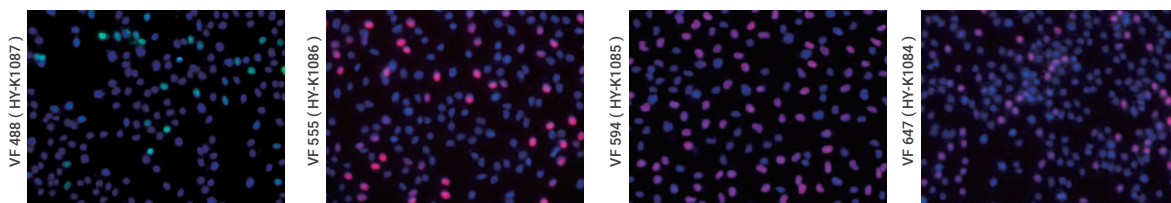


Figure 4. Results of EdU Detection at Different Wavelengths

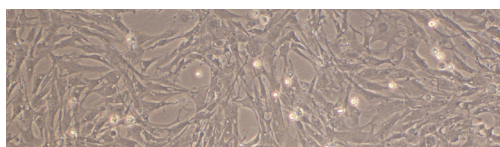
Cell Line: HeLa

Culture Condition: DMEM (HY-K3001) + 10% FBS

Testing Condition: Incubation with 10 μ M Edu for 2h;

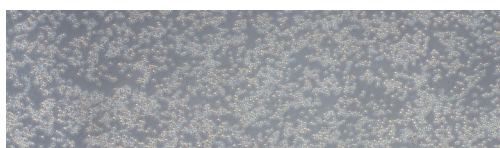
Test Results: The cell proliferation results were clear, with no dispersion in the cell nucleus.

Good growth, excellent condition (Cells are well-defined, transparent, plump, and refractive)



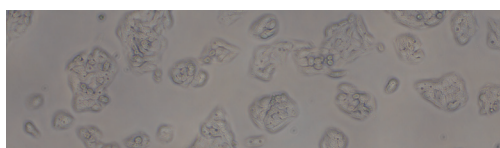
Cell Line: Chicken Muscle Satellite Cell

Culture Condition: DMEM (HY-K3001) + 10 % FBS



Cell Line: M-NFS-60

Culture Condition: RPMI 1640 (HY-K3004) + 10% FBS



Cell Line: HepG2

Culture Condition: MEM + 10% FBS

Figure 5. Diverse States of Cell Growth

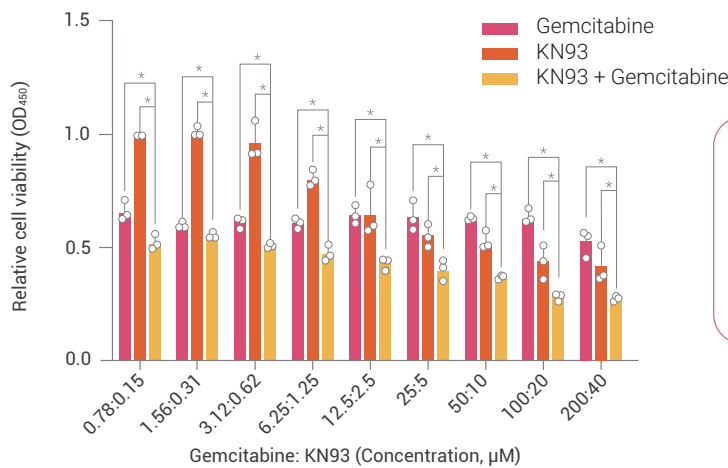
CUSTOMER VALIDATION

Case 1: Impact of Various Concentrations of KN93 and Gemcitabine on the Viability of CCLP1 Cells

Cell Line: CCLP1 cells

Culture Condition: DMEM + 10% FBS + 1% amphotericin B/penicillin/streptomycin, sampling after 1-2h

Test Results: KN93 Enhances the Sensitivity of CCLP1 Cells to Gemcitabine.



Customer Validation MCE Products

CCK-8 reagent (HY-K0301)

Anti-flag Beads (HY-K0207)

Cycloheximide (HY-12320)

Signal Transduct Target Ther. 2024 Mar 8;9(1):63.

Caes 2: Investigating the effect of OMVs on the vitality of THP-1 cells

Cell Line: THP-1

Culture Condition: DMEM + 10% FBS, Sampling and testing at fixed intervals

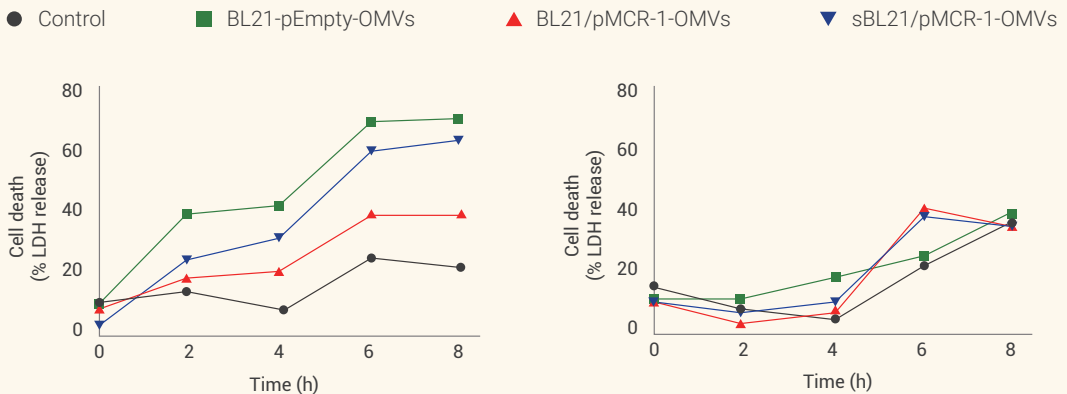
Test Results: Endogenous OMVs from BL21/pMCR-1 cannot induce cell pyroptosis and caspase-1 activation.

Customer Verification MCE Products

JC-1 Assay Kit (HY-K0601)

Cytotoxicity LDH Assay Kit (HY-K1090)

Microb Biotechnol. 2023 Sep;16(9):1755-1773.



PUBLICATIONS CITING USE OF MCE PRODUCTS

- [1] *Nature*. 2024 Mar;627(8002):149-156. [2] *Nature*. 2023 Aug;620(7973):426-433.
- [3] *Nature*. 2023 Jun;618(7966):862-870. [4] *Cell*. 2024 Feb 15;187(4):882-896.e17
- [5] *Cell*. 2023 Dec 7;186(25):5606-5619.e24. [6] *Signal Transduct Target Ther*. 2024 Mar 8;9(1):63.
- [7] *Signal Transduct Target Ther*. 2024 Mar 4;9(1):58. [8] *Cell Discov*. 2023 Feb 21;9(1):20.
- [9] *Cell Host Microbe*. 2024 Jan 11;S1931-3128(23)00510-3. [10] *Adv Mater*. 2023 Jun;35(23):e2300548.
- [11] *Drug Resist Updat*. 2023 Aug 21;71:101005. [12] *Int J Mol Sci*. 2024 Jan 23, 25(3), 1366.
- [13] *J Biol Eng*. 2024 Jan 22;18(1):11

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