



## SH-SY5Y

CSI210Hu12

*Instruction manual*

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Revised in May, 2024)

### [ DESCRIPTION ]

The SH-SY5Y cell line is a thrice cloned subline of the neuroblastoma cell line SK-N-SH, which was established in 1970 from a metastatic bone tumor from a 4-year-old cancer patient. Applications include use as a transfection host or in immunology, neuroscience, and toxicology research.

**Synonyms:** SH-SY5Y; SH-Sy5y; SK-SH-SY5Y; SY5Y

**Organism:** Homo sapiens, human

**Tissue Source:** Bone; Marrow

**Disease:** Neuroblastoma

**Cell Type:** Epithelial

**Growth Properties:** Mixed, adherent and suspension

### [ PROPERTIES ]

**Cell activity:** >95% (Viability by Trypan Blue Exclusion).

**Formulation:** Frozen 1 mL or T25 flask.

**Biosafety:** Negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast and fungi.

**Applications:** For research use only. It is not approved for human or animal use, or for application in clinical diagnostic procedures.

**Size:** >5×10<sup>5</sup>cell/vial

### [ STORAGE ]

Upon receiving, directly and immediately transfer the cells from dry ice to liquid nitrogen and keep the cells in liquid nitrogen until they are needed for experiments.

**Form & Buffer:** Supplied as solution form in frozen stock solution, containing 50% base medium +40%FBS+10%DMSO.

**Storage conditions:** liquid nitrogen

### [ USAGE ]

**Culture conditions:**

Complete growth medium: DMEM/F12+10%FBS+1%Penicillin-Streptomycin Solution

Temperature: 37°C

Condition: 95% air, 5% carbon dioxide



## **Cell recovery:**

1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the cap out of the water. The thawing time is about 2 minutes.
2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by spraying with 75% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.
3. Transfer the vial contents to a centrifuge tube containing 9.0mL complete culture medium. and spin at approximately 1000 rpm for 5 minutes.
4. Resuspend cell pellet with the recommended complete medium, and dispense into a T25 culture flask.
5. Incubate the culture at 37°C, 5% CO<sub>2</sub> in a suitable incubator.

## **Cell passage:**

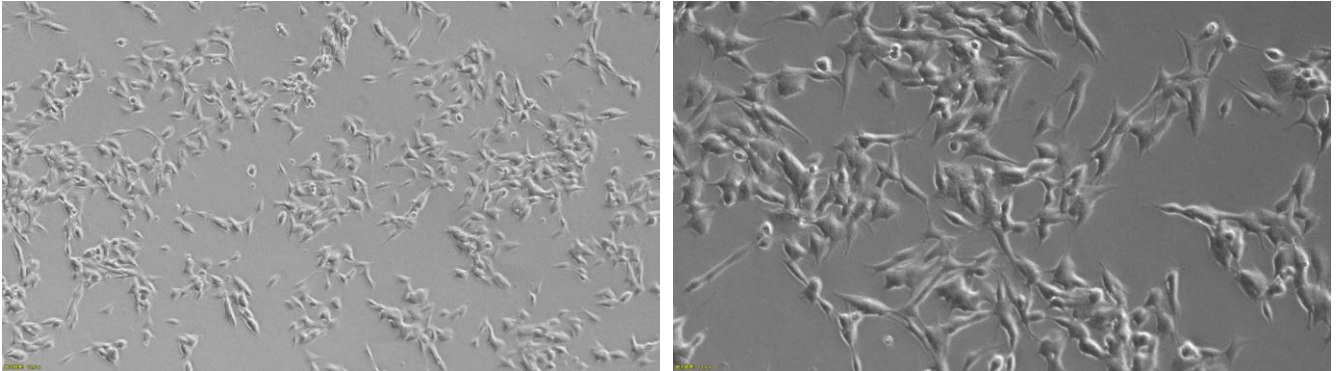
1. These cells grow as a mixture of floating and adherent cells. Floating cells are living cells, Remove the medium with the floating cells, and recover the cells by centrifugation.
2. Wash with PBS 1-2 times.
3. Add 1.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 2 to 3 minutes. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal). Stop digestion by adding 2-3 ml of complete medium containing 10% serum. Make it a single cell suspension.
4. Combine with the floating cells recovered above and dispense into new flasks. Add the fresh medium to resuspend the cells. The recommended ratio of the cells is 1/2-1/4.

## **[ IMPORTANTNOTE ]**

1. This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.
2. To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.
3. After cell recovery, please take regular microscopic examination and photos to record the growth status of cells.
4. Read the instructions carefully, and keep and operate in strict accordance with the instructions. If you observe abnormalities or have questions about cell culture operations, please contact us in time.



**[ Figure ]**



Morphology of SH-SY5Y (Optical microscope)