

SH-SY5Y | 300154

SH-SY5Y

Description

SH-SY5Y is a human neuroblastoma cell line derived from a 4-year-old child. It is a highly proliferative, immortalized cell line that is widely used in neuroblastoma research. The cells are characterized by their ability to differentiate into various neural lineages, including neurons, glial cells, and Schwann cells. SH-SY5Y cells are typically grown in DMEM/F12 medium supplemented with 5% fetal bovine serum (FBS) and 100 ng/ml insulin-like growth factor-1 (IGF-1). They are highly sensitive to neurotrophic factors and can be maintained in a differentiated state by the addition of these factors to the culture medium. SH-SY5Y cells are also highly sensitive to oxidative stress and are used to study the mechanisms of neurodegeneration and the effects of various neurotoxic agents.

Organism Human

Tissue Neuroblastoma

Disease Neuroblastoma

Metastatic site Neuroblastoma

Synonyms SH-Sy5y, SHSY5Y, SHSY5Y, SHSY-5Y, SK-SH-SY5Y, SY5Y, SH-SY5Y

SH-SY5Y

Age 4 years

Gender Male

Morphology Neuroblastoma

Cell type Neuroblastoma

Growth properties Neuroblastoma

SH-SY5Y

Citation SH-SY5Y (ATCC CRL-2266) | 300154

Biosafety level 1

SH-SY5Y | 300154

Thawing and Culturing Cells

1. Thaw the vial rapidly in a 37°C water bath. Transfer the cells to a pre-warmed medium.
2. Centrifuge the cells at 300 x g for 3 minutes. Remove the supernatant and resuspend the cells in 100 µl of medium.
3. Seed the cells into a 24-well plate at a density of 150,000 cells per well. Incubate at 37°C in 5% CO₂.
4. After 24 hours, the cells should reach 70% confluency. Pass the cells into a 96-well plate.
5. Seed the cells into a 96-well plate at a density of 15,000 cells per well. Incubate at 37°C in 5% CO₂.
6. After 24 hours, the cells should reach 70% confluency. Pass the cells into a 96-well plate.
7. Seed the cells into a 96-well plate at a density of 10,000 cells per well. Incubate at 37°C in 5% CO₂.
8. After 24 hours, the cells should reach 70% confluency. Pass the cells into a 96-well plate.

Incubation Atmosphere 37 °C, 5% CO₂

Flask Coating None

Freezing Procedure Harvest cells and resuspend in freezing medium. Store at -150 °C.

Shipping Conditions Store at -150 °C to -196 °C.

Storage Conditions Store at -150 °C to -196 °C.

SH-SY5Y / HLA

Sterility The cells are free of mycoplasmas and other contaminants. PCR screening is performed.

XXXXXXXX SH-SY5Y | 300154

XXXXXXXX XXXXXXXXXXXX STRAmelogenin: xØy

CSF1PO: 11
D13S317: 11
D16S539: 8,13
D5S818: 12
D7S820: 7,1
TH01: 7,1
TPOX: 8Ø11
vWA: 14Ø18
D3S1358: 15Ø16
D21S11: 31Ø31.2
D18S51: 13Ø16
Penta E: 7Ø11
Penta D: 10Ø12
D8S1179: 15
FGA: 23.2Ø24
D6S1043: 12Ø18
D2S1338: 17Ø19
D12S391: 18,22
D19S433: 13Ø14

XXXXXXXX HLA

A*: '01:01:01, '24:02:01
B*: '18:01:01, '49:01:01
C*: '07:01:01
DRB1*: '11:04:01, '13:01:01
DQA1*: '01:03:01, '05:05:01
DQB1*: '03:01:01, '06:03:01
DPB1*: '02:01:02, '04:01:01
E: '01:01, '01:03