

Product sheet

BT-474 | 300131

BT-474

Description BT-474 is a cell line derived from a 60-year-old female patient with breast cancer. It is a highly tumorigenic cell line that grows in suspension culture. BT-474 cells are characterized by their ability to form mammospheres in soft agar and their resistance to tamoxifen.

Organism Human

Tissue Breast, Mammary gland

Disease Breast cancer

Metastatic site Breast

Synonyms Bt-474, BT474

Characteristics

Age 60 years

Gender Female

Ethnicity Caucasian

Morphology Epithelial cells

Growth properties Cells grow in suspension culture, forming mammospheres in soft agar. They are highly tumorigenic and resistant to tamoxifen.

References

Citation BT-474 (Cytion 300131)

Biosafety level 1

NCBI_TaxID 9606

CellosaurusAccession CVCL_0179

BT-474 | 300131

Cell Line Characteristics

Receptors expressed	HER-2/NEU+, ER+, PR+
Isoenzymes	G6PD, B, PGM3, 1, PGM1, 1, ES-D, 1, Me-2, 0, AK-1, 1, GLO-1, 1, 0.0426
Tumorigenic	Yes , in nude mice
Virus susceptibility	Yes to retroviruses (RIII-MuMTV)
MSI-status	MSI (MSS)
Mutational profile	TP53
Karyotype	46, XX, t(11q23) der(11)t(11q23) = 55, del(11)(q23) = 50, del(11)(q23) = 112, del(11)(q23) = 58 - 59, del(11)(q23) = 100, del(11)(q23) = 3, del(11)(q23) = 100

Culture Conditions

Culture Medium	DMEM:Ham's F12 (1:1), w: 3.1 g/L Glucose , w: 2.5 mM L- Glutamine , w: 15 mM HEPES, w: 0.5 mM β-mercaptoethanol , w: 1.2 g/L NaHCO ₃ 820400a)
Supplements	10% FBS , 10 ng/ml Insulin Transferrin Selenium
Doubling time	60 to 80 hours
Subculturing	Cells are detached by trypsinization and centrifugation. They are resuspended in DMEM:Ham's F12 (1:1) supplemented with 10% FBS and 10 ng/ml Insulin, Transferrin, Selenium. Cells are seeded into T25 flasks at a density of 2 x 10⁴ cells per flask. After 24 hours, the medium is replaced with DMEM:Ham's F12 (1:1) supplemented with 10% FBS and 10 ng/ml Insulin, Transferrin, Selenium. Cells are harvested after 48 hours.
Seeding density	2 x 10 ⁴ cells per flask
Fluid renewal	2 to 3 times per week
Post-Thaw Recovery	100% recovery after 48 hours in 10% FBS 90% recovery

Freeze medium ~~DMEM:Ham's F12 (1:1) supplemented with 10% FBS and 10% DMSO~~

BT-474 | 300131

Thawing and Culturing Cells

1. Thaw the cells rapidly in a water bath at 37°C. Do not allow the cells to reach room temperature.
2. Centrifuge the cells at 300 x g for 3 minutes at 4°C. Remove the supernatant and resuspend the cells in 15 ml of fresh medium.
3. Seed the cells into a T25 flask containing 10 ml of fresh medium. The seeding density should be approximately 1.5 x 10⁶ cells per flask.
4. Incubate the cells at 37°C in 5% CO₂ until they reach 70-80% confluency.
5. Harvest the cells by trypsinization and centrifugation at 300 x g for 3 minutes at 4°C.
6. Resuspend the cells in 10 ml of fresh medium and seed them into a T25 flask.
7. Incubate the cells at 37°C in 5% CO₂ until they reach 70-80% confluency.
8. Harvest the cells by trypsinization and centrifugation at 300 x g for 3 minutes at 4°C.

Incubation Atmosphere

37°C, 5% CO₂, humidified

Flask Coating

Not required

Freezing Procedure

Resuspend cells in freezing medium and freeze at -80°C.

Shipping Conditions

Store at -80°C during shipping.

Storage Conditions

Store at -150°C for up to 196 weeks.

HLA

Sterility

Cells are provided in a sterile, cryoprotected medium. PCR screening is available upon request.

BT-474 | 300131

HLA

A*: '01:01:01, '29:02:01

B*: 07:02:01, 44:03:01

C*: 07:02:01, 16:01:01

DRB1*: 04:01, 15:01

DQA1*: '01:02:01, '03:03:01

DQB1*: 06:02:01

DPB1*: '04:01:01G, '05:01:01G

E: '01:01:01, '01:03:02