

Data Sheet

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BCRJ Code:	0284
Cell Line:	MV3
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Lymphnodes
Morphology:	Polymorphic
Disease:	Melanoma
Growth Properties:	Adherent
Sex:	Male
Age/Ethnicity:	76 Year /
Derivation:	Obtained from lymphatic nodule metastasis of a 76 years old patient whom suffered of amelanotic primary coetaneous melanoma in the chin region (nodular type, Clark IV).
Tumor Formation::	YES, in nude mice
Products:	Expression of transferrin receptor, EGF receptor, ICAM-1, integrin alfa 2 beta 1.
Biosafety:	1
Additional Info:	To select the highly tumorigenic melanoma human cells and metastatic in nude mice, the cells extracted of metastasis found at the patient's regional lymphatic nodules were subcutaneously xenotransplanted in nude mice. After three splits in nude mice, the cell line MV3 was isolated.
Culture Medium:	Dulbecco's Modified Eagle's Medium (DMEM) with 2 mM L-glutamine and 10% of fetal bovine serum.



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Subculturing:

Remove and discard culture medium. Briefly rinse the cell layer with PBS without calcium and magnesium to remove all traces of serum that contains trypsin inhibitor. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes). Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting. Add appropriate aliquots of the cell suspension to new culture vessels. Incubate cultures at 37°C. NOTE: For more information on enzymatic dissociation and subculturing of cell lines consult Chapter 12 in Culture of Animal Cells, a manual of Basic Technique by R. Ian Freshney, 6th edition, published by Alan R. Liss, N.Y., 2010.

Subculturing Medium Renewal:

Every 2 to 3 days

Subculturing Subcultivation Ratio:

1:6 to 1:8

Culture Conditions:

Atmosphere: air, 95%; carbon dioxide (CO₂), 5% Temperature: 37°C

Cryopreservation:

95% FBS + 5% DMSO (Dimethyl sulfoxide)

SAFETY PRECAUTION: It is strongly recommended to always wear protective gloves, clothing, and a full-face mask when handling frozen vials. Some vials may leak when submerged in liquid nitrogen, allowing nitrogen to slowly enter the vial. Upon thawing, the conversion of liquid nitrogen back to its gas phase may cause the vial to explode or eject its cap with significant force, creating flying debris.

1. Thaw the vial by gently agitating it in a 37°C water bath. To minimize contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 minutes).
2. Remove the vial from the water bath as soon as its contents are thawed and decontaminate it by dipping in or spraying with 70% ethanol. From this point, all operations must be performed under strict aseptic conditions.
3. For cells sensitive to DMSO, it is recommended to remove the cryoprotective agent immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL of complete culture medium and centrifuge at approximately 125 × g for 5 to 7 minutes.
4. Discard the supernatant and resuspend the cell pellet in the recommended complete medium (see specific batch information for the appropriate dilution ratio).
5. Incubate the culture under appropriate atmospheric and temperature conditions (see "Culture Conditions" for this cell line).

NOTE: It is important to avoid excessive alkalinity of the medium during cell recovery. To minimize this risk, it is recommended to place the culture vessel containing the growth medium in the incubator for at least 15 minutes before adding the vial contents. This allows the medium to stabilize at its normal pH (7.0 to 7.6).

Thawing Frozen Cells:

References:

Establishment and characterization of a human melanoma cell line (MV-3) which is highly metastatic in nude mice. Van Muijen GN, Jansen KF, Cornelissen IM, Smeets DF, Beck JL, Ruiter DJ. Int J Cancer. 1991 Apr 22; 48(1):85-91.

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Cellosaurus:

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