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| **BCRJ Code:** | 0403 |
| **Cell Line:** | MES-SA/Dx5 |
| **Species:** | Homo sapiens |
| **Vulgar Name:** | Human |
| **Tissue:** | Uterus |
| **Cell Type:** | Epithelial |
| **Morphology:** | Epithelial |
| **Disease:** | Sarcoma |
| **Growth Properties:** | Adherent |
| **Sex:** | Male |
| **Age/Ethinicity:** | 56 Year / Caucasian |
| **Derivation:** | The multi drug-resistant cell line MES-SA/Dx5 was derived from the human uterine sarcoma cell line MES-SA (ECACC catalogue no. 95051030) which was originally obtained from a tumour from a 56-year-old Caucasian female at the time of hysterectomy. The Dx5 variant exhibits a 100-fold resistance to doxorubicin and has a reported doubling time of 30 hours. The two additional marker chromosomes indicate clonal selection during drug selection. MES-SA/Dx-5 cells exhibit marked cross-resistance to a number of chemotherapeutic agents (including daunorubicin, dactinomycin, vincristine, taxol, colchicine) and moderate cross-resistance to mitomycin C and melphalan. Cross resistance to bleomycin, cisplatin, carmustine, 5-fluorouracil or methotrexate was not observed. |
| **Biosafety:** | 1 |
| **Culture Medium:** | McCoy's 5a + 2mM Glutamine + 10% of fetal Bovine Serum (FBS) |

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| **Subculturing:** | Split sub-confluent cultures (70-80%) using 0.03% EDTA; 5% CO2; 37°C. Tap side of flask to dislodge cells. Doubling time: ca. 30 hours |
| **Subculturing Subcultivation Ratio:** | 1:6 to 1:8 i.e. seeding at 1-3 x 10,000 cells/cm² |
| **Culture Conditions:** | Atmosphere: air, 95%; carbon dioxide (CO2), 5% Temperature: 37°C |
| **Cryopreservation:** | 95% FBS + 5% DMSO (Dimethyl sulfoxide) |
| **Thawing Frozen Cells:** | SAFETY PRECAUTION: Is highly recommend that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris. 1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the Oring and cap out of the water. Thawing should be rapid (approximately 2 minutes). 2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions. 3. For cells that are sensitive to DMSO is recommended that the cryoprotective agent be removed immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 125 x g for 5 to 7 minutes. 4.Discard the supernatant and Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio). 5. Incubate the culture in a appropriate atmosphere and temperature (see "Culture Conditions" for this cell line). NOTE: It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6). |
| **References:** | Cancer Res 1983; 43:4943; ibid 1985;45:4091. |
| **Depositors:** | Olavo Bohrer Amaral-Universidade Federal do Rio de Janeiro |
| **Cellosaurus:** | CVCL_2598 |