# Data Sheet



| | |
|---|---|
| **BCRJ Code:** | 0174 |
| **Cell Line:** | MIA PaCa-2 |
| **Species:** | Homo sapiens |
| **Vulgar Name:** | Human |
| **Tissue:** | Pancreas |
| **Cell Type:** | Epithelial Cell (Kras Crm) |
| **Morphology:** | Attached Epithelial With Floating Rounded Cells |
| **Disease:** | Carcinoma |
| **Growth Properties:** | Adherent, Single Cells And Loosely Attached Clusters |
| **Sex:** | Male |
| **Age/Ethinicity:** | 65 Year / Caucasian |
| **Derivation:** | The MIA PaCa-2 cell line was established from tumor tissue of the pancreas obtained from a 65-year-old Caucasian male. |
| **DNA Profile:** | Amelogenin: X CSF1PO: 10 D5S818: 12,13 D13S317: 12,13 D7S820: 12,13 D16S539: 10,13 vWA: 15 THO1: 9,10 TPOX: 9 |
| **Products:** | human colony stimulating factor, subclass I (CSF-I); plasminogen activator |
| **Biosafety:** | 1 |
| **Addtional Info:** | The cells are large with abundant cytoplasm, exhibit a high degree of aneuploidy, have a tendency to grow on top of other cells, eventually growing free in suspension. Sensitive to L-Asparaginase. |

| | |
|---|---|
| **Culture Medium:** | Dulbecco's modified Eagle's medium with 2 mM L-glutamine, 4.5 g/L glucose, 10% of fetal bovine serum and 2.5% of horse serum. |
| **Subculturing:** | Remove medium, and rinse with PBS without calcium and magnesium. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add fresh culture medium, aspirate and dispense into new culture flasks. T-75 flasks are recommended for subculturing this product. 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:** | 2 to 3 times per week |
| **Subculturing Subcultivation Ratio:** | 1:3 to 1:8 |
| **Culture Conditions:** | Atmosphere: air, 95%; carbon dioxide (CO2), 5% Temperature: 37°C |
| **Cryopreservation:** | 95% FBS + 5% DMSO (Dimethyl sulfoxide) |

| | |
|---|---|
| **Thawing Frozen Cells:** | 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.<br>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).<br>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.<br>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.<br>4. Discard the supernatant and resuspend the cell pellet in the recommended complete medium (see specific batch information for the appropriate dilution ratio).<br>5. Incubate the culture under appropriate atmospheric and temperature conditions (see "Culture Conditions" for this cell line).<br><br>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). |
| **References:** | 1057: Wu M , et al. Purification and characterization of a plasminogen activator secreted by cultured human pancreatic carcinoma cells. Biochemistry 16: 1908-1913, 1977. PubMed: 15590 22291: Fountzilas G , et al. Comparative effects of selected drug combi |
| **Depositors:** | Ana Marisa Chudzinski-Tavassi - Instituto Butantan |
| **Cellosaurus:** | CVCL_0428 |