Product sheet

U-118 MG Cells | 300362

General information

Description	This is one of a number of cell lines derived from malignant gliomas (see also U-87 MG, U-138 MG and U-373 MG) by J. Ponten and associates from 1966 to 1969.
Organism	Human
Tissue	Brain
Disease	Astrocytoma
Synonyms	U-118 MG, U-118-MG, U118-MG, U118MG, U118, 118 MG, 118MG

Characteristics

Age	47 years
Gender	Male
Ethnicity	Caucasian
Morphology	Mixed
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	U-118 MG (Cytion catalog number 300362)
Biosafety level	1

Expression / Mutation

Antigen expression	Blood Type A, Rh+, HLA Aw24, A28, B12, Bw47
Isoenzymes	Me-2, 1, PGM3, 2, PGM1, 2, ES-D, 1, AK-1, 1-2, GLO-1, 1-2, G6PD, B, Phenotype Frequency Product: 0.0001
Tumorigenic	Yes, in nude mice

Karyotype	The line has a near pentaploid chromosome number and a wide range of chromosome number distribution (40% of the cells had numbers ranging from 110 to 115). The following 14 markers were found in most metaphases: t(1p,2p), t(3p,?), t(4p,11q), t(7p,22q), M6, t(9q,?), i(11q)18q t(10q,?), M14, M15, M16, M17 and t(10q,22q), 6 of these were found in some and 10 were seen in one only. Normal chromosomes 7, 8, 12, 19, 20 and 22 had 5 to 6 copies per cell, the x had two copies and the Y was absent.

Handling

Culture Medium	DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 1.5 g/L NaHCO3, w: 1.0 mM Sodium pyruvate (Cytion article number 820300a)
Medium supplements	Supplement the medium with 10% FBS
Passaging solution	Accutase
Subculturing	Remove medium and rinse the adherent cells using PBS without calcium and magnesium (3-5 ml PBS for T25, 5-10ml for T75 cell culture flasks). Add Accutase (1-2ml per T25, 2.5ml per T75 cell culture flask), the cell sheet must be covered completely. Incubate at ambient temperature for 10 minutes. Carefully resuspend the cells with medium (10 ml), centrifuge for 3 min at 300 g, resuspend cells in fresh medium and dispense into new flasks which contain fresh medium.
Split ratio	A ratio of 1:3 to 1:6 is recommended
Seeding density	2 x 10^4 cells/cm^2
Fluid renewal	2 to 3 times per week
Freeze medium	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)
Handling of cryopreserved cultures	U-118 MG cells are shipped in a deep-frozen state on dry ice. Upon receipt, confirm that the vial remains frozen. For storage, place the cryovial immediately at temperatures below -150 degrees. If you plan to culture the cells immediately, swiftly thaw the vial by shaking it in a 37 degrees water bath with clean water and an antimicrobial agent for 40-60 seconds. Remove the vial once a small ice clump persists, ensuring it remains cold. Proceed with all subsequent steps under aseptic conditions. In a sterile flow hood, disinfect the cryovial with 70% ethanol. Then, gently open the vial and transfer the cell suspension into a 15 ml centrifuge tube pre-filled with 8 ml of room temperature culture medium. Gently mix the cells. For cell separation, centrifuge at 300 x g for 3 minutes and dispose of the supernatant. Skipping centrifugation is optional, although any residual freezing medium should be removed after 24 hours. Resuspend the pellet gently in 10 ml of fresh culture medium and divide between two T25 culture flasks. Follow the subculture protocol for subsequent steps.

Handling of proliferating cultures	One or two cell culture flasks come filled with cell culture medium. Collect the entire medium in a 50 ml centrifuge tube. Spin down the collected medium at 300 x g for 3 minutes to collect the cells which may have detached during transit. If a cell pellet is visible, resuspend the cells in 5 ml of cell culture medium and transfer to a T25 cell culture flask. Carefully add 5 ml of cell culture medium to each T25 cell culture flask. Examine cell morphology and confluency using a microscope. Finally, incubate the flasks at 37 degrees Celsius for at least 24 hours.

Quality control / Genetic profile / HLA

Sterility	Mycoplasma contamination is rigorously excluded using both PCR-based assays and luminescence-based mycoplasma detection methods. To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.
STR profile	**Amelogenin**: x,x **CSF1PO**: 11,12 **D13S317**: 9,11 **D16S539**: 12,13 **D5S818**: 11 **D7S820**: 9 **TH01**: 6 **TPOX**: 8 **vWA**: 18 **D3S1358**: 15 **D21S11**: 27,32.2 **D18S51**: 13 **Penta E**: 7 **Penta D**: 13 **D8S1179**: 14.15 **FGA**: 23
HLA alleles	**A***: 24:02:01, 29:02:01 **B***: 39:06:02, 44:03:01 **C***: 07:02:01, 16:01:01 **DRB1***: 07:01:01, 08:01:01G **DQA1***: 02:01:01, 04:01:01 **DQB1***: 02:02:01, 04:02:01 **DPB1***: 04:02:01, 11:01:01 **E**: 01:01, 01:03