

MDCC-MSB1 | 601413

General information

Organism	Chicken
Disease	Marek disease
Synonyms	MDCC MSB1, MDCC-MSB-1, MSB-1, MSB1

Characteristics

Morphology	Round cells
Cell type	Lymphoblast
Growth properties	Suspension

Identifiers / Biosafety / Citation

Citation	MDCC-MSB1 (Cytion catalog number 601413)
Biosafety level	1

Expression / Mutation

Handling

Culture Medium	RPMI 1640
Medium supplements	10% FBS, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO3
Passaging solution	The utilization of a passaging solution is not necessary when passaging cells that are cultured in suspension. The appropriate procedure is to dilute the cells in accordance with the indicated guidelines.
Doubling time	10 hours
Subculturing	Establish new cultures at 3×10^5 viable cells/ml. Maintain the cell density between 1×10^5 and 1×10^6 cells/ml by transferring an appropriate amount of cell suspension into a new cell culture flask refilled with fresh cell culture medium.

MDCC-MSB1 | 601413

Seeding density 1 x 10⁶ cells/ml

Fluid renewal 2 to 3 times per week

Freezing recovery After thawing, allow the cells to recover from the freezing process for at least 24 hours.

Freeze medium CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

Handling of cryopreserved cultures The cells come deep-frozen shipped on dry ice. Please make sure that the vial is still frozen. If immediate culturing is not intended, the cryovial must be stored below -150 degree Celsius after arrival. If immediate culturing is intended, please follow the below instructions: Quickly thaw by rapid agitation in a 37 degree Celsius water bath within 40-60 seconds. The water bath should have clean water containing an antimicrobial agent. As soon as the sample has thawed, remove the cryovial from the water bath. A small ice clump should still remain and the vial should still be cold. From now on, all operations should be carried out under aseptic conditions. Transfer the cryovial to a sterile flow cabinet and wipe with 70% alcohol. Carefully open the vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of culture medium (room temperature). Resuspend the cells carefully. Centrifuge at 300 x g for 3 min and discard the supernatant. The centrifugation step may be omitted, but in this case the remains of the freeze medium have to be removed 24 hours later. Resuspend the cells carefully in 10 ml fresh cell culture medium and transfer them into two T25 cell culture flasks. All further steps are described in the subculture section.

Handling of proliferating cultures One or two cell culture flasks come filled with cell culture medium. Collect the entire medium in 1 or 2 x 50 ml centrifuge tubes, respectively. Carefully add 5 ml of cell culture medium to each T25 cell culture flask. Control the cell morphology and confluency under the microscope. Incubate at 37 degree Celsius for a minimum of 24 hours. 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. Incubate at 37 degree Celsius for a minimum of 24 hours.

Quality control / Genetic profile / HLA

Sterility Mycoplasma contaminations are ruled out through PCR-based and luminescence-based mycoplasma assays. The absence of bacterial, fungal or yeast contamination is controlled through daily visual cell monitoring.