

Data Sheet

PAGE 1/3

BCRJ Code:	0140
Cell Line:	L5178Y TK+/- clone (3.7.2C) [TK+/- (clone 3.7.2C)]
Species:	Mus musculus
Vulgar Name:	Mouse; DbA/2
Tissue:	Thymus
Morphology:	Lymphoblast
Disease:	Lymphoma
Growth Properties:	Suspension
Derivation:	The transplantable murine leukemia L5178 was derived from a thymic tumor induced in a DBA/2 mouse by methylcolanthrene. The tumor was adapted in culture in 1958, and established as cell line growing in suspension, designated L5178y.
Applications:	The cell line can be used in genotoxicity tests including gene mutation assays at the tk and other loci and micronucleus induction.
Tumor Formation::	in DBA/2 mice
Biosafety:	1
Culture Medium:	Dulbecco's modified Eagle's medium with 4 mM L-glutamin, 4.5 g/L glucose, 0.1% Pluronic and 10% fetal bovine serum.
Subculturing:	Cultures can be maintained by the addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension. Maintain cultures from 1x10 ⁵ to 1x10 ⁶ cells/mL.
Subculturing Medium Renewal:	Every 3 to 4 days

Data Sheet

PAGE 2/3

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.

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).

References: Sawyer JR, Binz RL, Wang J, Moore MM. 2006 Multicolor spectral karyotyping of the L5178Y Tk⁺/ -3.7.2C mouse lymphoma cell line. Environ Mol Mutagen.47(2):127-31.PMID: 16247762 Chem. Mutagens 3: pp. 79-103, 1973.

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