

Code:	0235
Cell Line:	Toledo
Species:	Homo sapiens Vulgar Name: Human
Tissue:	Peripheral Blood
Morphology:	Lymphoblast
Disease:	Diffuse Large Cell Lymphoma; Non-Hodgkin'S B Cell Lymphoma
Growth Properties:	Suspension
Sex:	Female
Age Ethnicity:	ADULT; white
Derivation:	Toledo was established in 1990 from peripheral blood leukocytes (PBL) of a patient that originally had a diffuse large cell lymphoma (DLCL). [53289]
Applications:	This cell line is a model system for studying non-Hodgkin lymphomas.
DNA Profile:	D5S818:10,12 D7S820: 9,10 THO1: 8,9.3 TPOX: 8,11 vWA: 16,17 Amelogenin: X CSF1PO: 12 D13S317:11 D16S539:9
Biosafety:	1
Additional info:	Following high-dose chemotherapy and bone marrow transplantation, the patient subsequently developed a lymphoma in the brain. Though the morphology of the cells resembles Burkitt's lymphoma, the cells lack the typical chromosomal translocations of Burkitt's lymphoma. The karyotype does exhibit multiple chromosomal aberrations. The cells do not express surface or cytoplasmic immunoglobulin.
Culture Medium:	RPMI-1640 medium modified to contain 2 mM L-glutamine, 10 mM HEPES, 1 mM sodium pyruvate, 4500 mg/L glucose, and 1500 mg/L sodium bicarbonate and 10% of fetal bovine serum.

Subculturing: Cultures can be maintained by addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension in fresh medium at 3 to 5×10^5 viable cells/mL. Maintain cultures at cell concentrations between 3×10^5 and 3×10^6 viable cells/mL. Population Doubling Time: 24 to 30 hrs

Medium Renewal: Add fresh medium every 2 to 3 days (depending on cell density).

Subcultivation ratio:

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 highly recommended 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 submerged 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 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 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 it 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 $125 \times g$ 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 an 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:	53289: Gabay C, et al. Somatic mutations and intraclonal variations in the rearranged V κ genes of B-non-Hodgkin's lymphoma cell lines. Eur. J. Immunol. 63: 180-191, 1999. PubMed: 10485273
Depositors:	RAQUEL MAIA; INCA
ATCC:	CRL-2631