BCRJ Code:	0020
Cell Line:	3T6-Swiss albino
Species:	Mus musculus
Vulgar Name:	Mouse
Tissue:	Embryo
Cell Type:	Fibroblast
Morphology:	Fibroblast
Growth Properties:	Adherent
Derivation:	The 3T6 cell line is a collagen and hyaluronic acid secreting line established by G. Todaro and H. Green in 1963 from disaggregated Swiss mouse embryos.
Applications:	transfection host
Virus Resistance::	POLIOVIRUS 2
Products:	Collagen; Hyaluronic acid
Biosafety:	1
Culture Medium:	Dulbecco's Modified Eagle's Medium (DMEM) modified with 4500 mg/L glucose and bovine calf serum to a final concentration of 10%.

Subculturing:	NOTA: Never allow culture to become completely confluent. 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. 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 a week
Subculturing Subcultivation Ratio:	1:4 to 1:10
Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO2), 5% Temperature: 37°C Growth Conditions: The serum used is important in culturing this line. Calf serum is recommended and not fetal bovine serum.
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:	Todaro GJ, Green H. Quantitative studies of the growth of mouse embryo cells in culture and their development into established lines. J. Cell Biol. 17: 299-313, 1963. PubMed: 13985244 Vogt M, Dulbecco R. Studies on cells rendered neoplastic by polyoma virus: the problem of the presence of virus-related materials. Virology 16: 41-51, 1962. PubMed: 13926482 Green H, et al. Differentiated cell types and the regulation of collagen synthesis. Nature 212: 631-633, 1966. PubMed: 5971697
Depositors:	Hugo Armelin, Universidade de Sao Paulo. ALDO ANGELO MOREIRA LIMA - UNIVERSIDADE FEDERAL DO CEARÁ; Marcelo Lima Ribeiro - Universidade São Francisco Claudia Maria Oller do Nascimento
Cellosaurus:	CVCL_0601