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: Is highly recommend 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 submersed 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 Oring 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 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 x 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 a 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:	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

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ATCC:	CCL-96