BCRJ Code:	0160
Cell Line:	MCCOY [MCCOY B]
Species:	Mus musculus
Vulgar Name:	Mouse
Cell Type:	Fibroblast
Morphology:	Fibroblast
Growth Properties:	Adherent
Applications:	The cells have been used to propagate laboratory strains of the 15 recognized serotypes of Chlamydia trachomatis. The cells are susceptible to chlamydia strains, and can be used to propagate chlamydia.
Biosafety:	1
Addtional Info:	Little descriptive information about the origin of the McCoy cells appears in the literature. They were first mentioned by Pomerat, et al. The cells were reported to have originated from the synovial fluid in the knee joint of a patient suffering from degenerative arthritis. In ca. 1965, Defendi, et al., showed that McCoy cells (designated McCoy A) were indeed human cells. However, another subline (designated McCoy B) was, in fact, of mouse origin and possessed marker chromosomes characteristic of strain L mouse fibroblasts. McCoy cells presumed to be human, but which actually are mouse cells, have been disseminated from laboratory to laboratory throughout the world. Initial interest in McCoy cells followed the demonstration by Gordon and Quan [PubMed: 14268619] and Gordon, et al. [PubMed: 4110420] that ionizing radiation (cobalt-60) greatly increased the susceptibility of McCoy cells to infection by chlamydia strains. A culture of the so-called McCoy cell line was received from the Centers for Disease Control, Cell Culture Department, Atlanta, GA in March, 1984. Documentation as to origin or passage history was not available. The cells have been used to propagate laboratory strains of the 15 recognized serotypes of Chlamydia trachomatis. The cells are susceptible to chlamydia strains, and can be used to propagate chlamydia.

Culture Medium:	Dulbecco's Modified Eagle's Medium (DMEM) with 1% non-essential amino acids, 2 mM L-glutamine, 1 mM sodium pyruvate, 1.0 g/L glucose and 10% of fetal bovine serum.
Subculturing:	Volumes used in this protocol are for 75 cm2 flasks; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes. Remove and discard culture medium. Briefly rinse the cell layer with PBS without calcium and magnesium to remove all traces of serum which contains trypsin inhibitor. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes). Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting. Add appropriate aliquots of the cell suspension to new culture vessels. Incubate cultures at 37°C. 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 per week
Subculturing Subcultivation Ratio:	1:2 to 1:4
Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO2), 5% Temperature: 37°C
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:	Pomerat CM, et al. Irradiation of cells in tissue culture. I. Giant cell induction in strain cultures versus elements from primary explants. Z. Zellforsch. 47: 158-174, 1957. Gordon FB, Quan AL. Isolation of the trachoma agent in cell culture. Proc. Soc. Exp. Biol. Med. 118: 354-359, 1965. PubMed: 14268619 Gordon FB, et al. Effect of ionizing irradiation on susceptibility of McCoy cell cultures to Chlamydia trachomatis. Appl. Microbiol. 23: 123-129, 1972. PubMed: 4110420 Yasin B, et al. Susceptibility of Chlamydia trachomatis to protegrins and defensins. Infect. Immun. 64: 709-713, 1996. PubMed: 8641770
Depositors:	Banco de Células do Rio de Janeiro
ATCC:	CRL 1696
Cellosaurus:	CVCL_3742