Data Sheet

BCRJ Code:	0313
Cell Line:	BGMK
Species:	Cercopithecus aethiops
Vulgar Name:	Monkey; African Green Monkey
Tissue:	Kidney
Cell Type:	No associated disease stated
Morphology:	Epithelial-Like
Growth Properties:	Adherent
Virus Succeptility::	CHLAMYDIA, HSV, COXSACKIE B, COXSACKIE A, ECHOVIRUS, POLIVIRUS
Biosafety:	1
Addtional Info:	BGMK cells are Buffalo green monkey kidney cells. BGMK cells are commonly used for the isolation of Chlamydia trachomatis and Enterovirus, with an enhanced sensitivity for Coxsackie B viruses. BGMK cells are actually kidney cells from African green monkeys; there is no species named Buffalo green monkey.
Culture Medium:	Dulbecco's Modified Eagle's Medium (DMEM) modified to contain 2 mM L-glutamine, 4500 mg/L glucose and 10% of fetal bovine serum.

Subculturing:	NOTE: Subculture when 80% confluent or less. 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. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting. Add appropriate aliquots of the cell suspension into new culture vessels, seeding at 5x1,000 to 2x10,000 cells/cm². 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:	Every 2 to 3 days
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:	Barron AL, Olshevsky C, Cohen MM. Characteristics of the BGM line of cells from African green monkey kidney. Brief report. Arch Gesamte Virusforsch. 1970;32(4):389-92. PMID: 4993582 [PubMed - indexed for MEDLINE]
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