

Data Sheet

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BCRJ Code: 0254

Cell Line: Y-1

Species: Mus musculus

Vulgar Name: Mouse

Tissue: Adrenal Gland; Tumor/Cortex

Morphology: Epithelial

Growth Properties: Adherent

Sex: Male

Applications: This cell line is useful for the detection of LT toxin (American Public Health Association. Compendium of methods for the microbiological examination of foods. 3rd ed. Washington, DC: American Public Health Association; 1992.), cholera toxin (U.S. Food & Drug Administration Detection of cholera enterotoxin (CT) and cytotoxin In: U.S. Food & Drug Administration Bacteriological analytical manual 8th ed. Gaithersburg, MD AOAC International pp. 9.12-9.15, 1995), and verotoxin.

Virus Susceptibility: HERPES SIMPLEX VIRUS; PSEUDORABIES VIRUS; VACCINIA VIRUS; HUMAN POLIOVIRUS 1;

Products: steroid hormones

Biosafety: 1

Additional Info: Steroid secretion is stimulated by ACTH.

Culture Medium: F-12K Medium (Kaighn's Modification of Ham's F-12 Medium) contains 2 mM L-glutamine with 2.5% of fetal bovine serum and 15% of horse serum.

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Subculturing:

Volumes used in this protocol are for 75 cm² flask; 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 that 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:

At least 2 times per week (or else hormone production will decrease)

Subculturing Subcultivation Ratio:

1:2 to 1:6

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 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 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:

1216: Yasumura Y, et al. Clonal analysis of differentiated function in animal cell cultures. I. Possible correlated maintenance of differentiated function and the diploid karyotype. Cancer Res. 26: 529-535, 1966. PubMed: 5930699 21447: American Public Health

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ATCC:

CCL-79