Data Sheet

BCRJ Code:	0426
Cell Line:	ARH-77
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Peripheral Blood
Cell Type:	B lymphoblast
Morphology:	Lymphoblast
Disease:	Plasma Cell Leukemia
Growth Properties:	Suspension
Sex:	Female
Age/Ethinicity:	33 Year / White
Derivation:	The ARH-77 cell line was established from the peripheral blood of a patient suffering from IgG plasma cell leukemia. Although established from cells taken from a patient with a plasma cell leukemia, this line has been shown to be an EBV-transformed B lymphoblastoid cell line.
Applications:	3D cell culture; Immune system disorder research; Immunology
DNA Profile:	Amelogenin: X CSF1PO: 6,10 D13S317: 11,13 D16S539: 9,13 D5S818: 10,13 D7S820: 7,12 TH01: 8,9.3 TPOX: 8 vWA: 17 D3S1358: 16 D21S11: 29,30 D18S51: 14,16 Penta_E: 12 Penta_D: 10 D8S1179: 14,15 FGA: 20,21 D19S433: 14,15 D2S1338: 17
Biosafety:	2

Addtional Info:	The cells are positive for Epstein-Barr nuclear antigen(EBNA +) and Epstein-Barr viral capsid antigen (EBVCA +).
Culture Medium:	RPMI-1640 medium modified to contain 2 mM L-glutamine, 4500 mg/L glucose and fetal bovine serum to a final concentration of 10%.
Subculturing:	Cultures can be maintained by addition or replacement of fresh medium. Start cultures at 2 x 105 viable cells/mL and maintain between 1 x 105 and 1 x 106 cells/mL.
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:

Burk KH, et al. Establishment of a human plasma cell line in vitro. Cancer Res. 38: 2508-2513, 1978. PubMed: 566614 Cote RJ, et al. Generation of human monoclonal antibodies reactive with cellular antigens. Proc. Natl. Acad. Sci. USA 80: 2026-2030, 1983. PubMed: 6572959 Storkus WJ, et al. Reversal of natural killing susceptibility in target cells expressing transfected class I HLA genes. Proc. Natl. Acad. Sci. USA 86: 2361-2364, 1989. PubMed: 2784569 Edwards PA, et al. A human-hybridoma system based on a fast-growing mutant of the ARH-77 plasma cell leukemia-derived line. Eur. J. Immunol. 12: 641-648, 1982. PubMed: 7140810 Pellat-Deceunynk C, et al. Human myeloma cell lines as a tool for studying the biology of multiple myeloma: a reappraisal 18 years after. Blood 86: 4001-4002, 1995. PubMed: 7579375

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