Data Sheet

BCRJ Code:	0380
Cell Line:	Y-79
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Eye, retina
Cell Type:	Retinoblastoma
Morphology:	Multicellular clusters
Disease:	Retinoblastoma
Growth Properties:	Suspension
Sex:	Female
Age/Ethinicity:	2 Year / Caucasian
Derivation:	The Y79 line was isolated by T.W. Reid and associates in January 1971 by explant culture of a primary tumor from the right eye obtained immediately after enucleation.
Biosafety:	1
Addtional Info:	The donor had a strong maternal family history of retinoblastoma. Ultrastructural features including nuclear membrane infoldings, triple membrane structures, microtubules, large coated vesicles, centrioles, basal bodies and annulate lamellae were reportedly similar to those of the original tumor.
Culture Medium:	RPMI-1640 medium modified to contain 2 mM L-glutamine, 4500 mg/L glucose with fetal bovine serum to a final concentration of 20%.

Subculturing:	Allow aggregates to settle to the bottom of the flask. Remove supernatant and discard. Add fresh medium, aspirate and dispense into new flasks.
Subculturing Medium Renewal:	Twice per week
Subculturing Subcultivation Ratio:	1:2 to 1:4 is recommended
Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO2), 5%
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:	Reid TW, et al. Characteristics of an established cell line of retinoblastoma. J. Natl. Cancer Inst. 53: 347-360, 1974. PubMed: 4135597 Rostomily RC, et al. Expression of neurogenic basic helix-loop-helix genes in primitive neuroectodermal tumors. Cancer Res. 57: 3526-3531, 1997. PubMed: 9270024 Wong HK, Ziff EB. The human papillomavirus type 16 E7 protein complements adenovirus type 5 E1A amino-terminus-dependent trasactivation of adenovirus type 5 early genes and increases ATF and Oct-1 DNA binding activity. J. Virol. 70: 332-340, 1996. PubMed: 8523545
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