BCRJ Code:	0418
Cell Line:	G-401 [G401]
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Kidney
Cell Type:	Epithelial
Morphology:	Epithelial
Disease:	Rhabdoid Tumor
Growth Properties:	Adherent
Sex:	Male
Age/Ethinicity:	3 months / White
Derivation:	G-401 was deposited as a cell line derived from a Wilms' tumor.
Applications:	3D cell culture
DNA Profile:	Amelogenin: X,Y CSF1PO: 11,13 D13S317: 9,14 D16S539: 12 D5S818: 13 D7S820: 11,14 TH01: 8,9.3 TPOX: 8,11 vWA: 16 D3S1358: 16,18 D21S11: 31,32.2,33.2 D18S51: 14 Penta_E: 7 Penta_D: 10,11 D8S1179: 13,14 FGA: 24,26,27 D19S433: 13,14 D2S1338: 18,24
Tumor Formation::	Yes; Yes, forms colonies in soft agar
Products:	Genes expressed: nephroblast growth factor (NB-GF) Isoenzymes: G6PD, B
Biosafety:	1

Addtional Info:	G-401 was deposited as a cell line derived from a Wilms' tumor. Due to a change in the classification of such tumors, the cell line was examined by Garvin et al. and found to be more appropriately classified as derived from a rhabdoid tumor of the kidney.
Culture Medium:	McCoy's 5a Medium Modified and fetal bovine serum to a final concentration of 10%.
Subculturing:	Remove medium, and rinse with 0.25% trypsin, 0.53 mM EDTA solution. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add fresh culture medium, aspirate and dispense into new culture flasks.
Subculturing Medium Renewal:	2 to 3 times per week
Subculturing Subcultivation Ratio:	1:2 to 1:6 is recommended
Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO2), 5%
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:	Weissman BE, et al. Introduction of a normal human chromosome 11 into a Wilms' tumor cell line controls its tumorigenic expression. Science 236: 175-176, 1987. PubMed: 3031816 Burrow CR, Wilson PD. A putative Wilms tumor-secreted growth factor activity required for primary culture of human nephroblasts. Proc. Natl. Acad. Sci. USA 90: 6066-6070, 1993. PubMed: 8392186 Karnieli E, et al. The IGF-1 receptor gene promoter is a molecular target for the Ewing's Sarcoma=Wilms' Tumor 1 fusion protein. J. Biol. Chem. 271: 19304-19309, 1996. PubMed: 8702614 Garvin AJ, et al. The G401 cell line, utilized for studies of chromosomal changes in Wilms' tumor, is derived from a rhabdoid tumor of the kidney. Am. J. Pathol. 142: 375-380, 1993. PubMed: 8382007
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