Data Sheet

BCRJ Code:	0202
Cell Line:	PC-12 ADH
Species:	*Rattus norvegicus*
Vulgar Name:	Rat
Tissue:	Adrenal Gland
Morphology:	Polygonal
Disease:	Pheochromomyocitoma
Growth Properties:	Adherent, Small Clusters
Sex:	Male
Derivation:	The PC-12 cell line was derived from a transplantable rat pheochromocytoma. The cells do not synthesize epinephrine. This adherent variant (PC-12 Adh) has been adapted to Corning CellBIND® flasks to improve cell attachment
Applications:	This cell line is a suitable transfection host.
Tumor Formation::	Yes, in New England Deaconess Hospital strain rats
Products:	catecholamines; dopamine; norepinephrine
Biosafety:	1
Culture Medium:	F-12K Medium (Kaighn's Modification of Ham's F-12 Medium) contains 2 mM L-glutamine, fetal bovine serum to a final concentration of 2.5% and horse serum to a final concentration of 15%.

Subculturing:	Use Corning CellBIND flasks (Corning catalog #3289 through 3293) Volumes used for this protocol are for a 75 cm2 flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes. Remove and discard old culture medium. Pipet 10 mL fresh medium over the cell sheet and scrape. Aspirate cells with a small bore pipette to break up clusters. Add appropriate aliquots of the cell suspension to new Corning CellBIND® 75 cm2 flask with 15 mL fresh growth medium. Seed flask at 1.0 x 10e4 to 3.0 x 10e4 viable cells / cm2 or use subcultivation ratio of 1:3 twice weekly. Subculture when cell density reaches between 1.0 x 10e5 to 2.0 x 10e5 viable cells/cm2. Place culture vessels in incubator at 37°C. Population Doubling Time 48 hrs 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: 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:	Levi A, et al. Molecular cloning of a gene sequence regulated by nerve growth factor. Science 229: 393-395, 1985
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ATCC:	CRL-1721.1