BCRJ Code:	0416
Cell Line:	NCI-H460 [H460]
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Lung; Pleural effusion
Cell Type:	Epithelial
Morphology:	Epithelial
Disease:	Carcinoma
Growth Properties:	Adherent
Sex:	Male
Age/Ethinicity:	Year /
Derivation:	The NCI-H460 cell line was derived by A.F. Gazdar and associates in 1982 from the pleural fluid of a patient with large cell cancer of the lung.
Applications:	NCI-H460 [H460] cells were isolated in 1982 from the pleural fluid of a male patient with large cell lung cancer. Use these cells in your cancer and toxicology research.
DNA Profile:	"D3S1358: 15,18 TH01: 9.3 D21S11: 30 D18S51: 13,15 Penta_E: 5 D5S818: 9,10 D13S317: 13 D7S820: 9,12 D16S539: 9 CSF1PO: 11,12 Penta_D: 11,13 Amelogenin: X,Y vWA: 17 D8S1179: 12 TPOX: 8 FGA: 21,23 D19S433: 14 D2S1338: 17,25"
Tumor Formation::	Yes; Yes, in nude mice
Products:	"Isoenzymes: AK-1, 1 ES-D, 1 G6PD, B GLO-I, 1-2 Me-2, 1 PGM1, 1 PGM3, 1"

Biosafety:	1
Addtional Info:	The cells express easily detectable p53 mRNA at levels comparable to normal lung tissue, and exhibit no gross structural DNA abnormalities. The cells stain positively for keratin and vimentin but are negative for neurofilament triplet protein.
Culture Medium:	RPMI 1640 with 2.0 mM L-glutamine adjusted to contain 4.5 g/L glucose, 1.0 mM sodium pyruvate and 10% of fetal bovine serum.
Subculturing:	"Remove medium, and rinse with 0.25% trypsin, 0.03% 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:	Twice a week
Subculturing Subcultivation Ratio:	1:3 to 1:8 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:	"Banks-Schlegel SP, et al. Intermediate filament and cross-linked envelope expression in human lung tumor cell lines. Cancer Res. 45: 1187-1197, 1985. PubMed: 2578876 Takahashi T, et al. p53: A frequent target for genetic abnormalities in lung cancer. Science 246: 491-494, 1989. PubMed: 2554494 Brower M, et al. Growth of cell lines and clinical specimens of human non-small cell lung cancer in a serum-free defined medium. Cancer Res. 46: 798-806, 1986. PubMed: 3940644 Geiger T, et al. Antitumor activity of a PKC-alpha antisense oligonucleotide in combination with standard chemotherapeutic agents against various human tumors transplanted into nude mice. Anticancer Drug Des. 13: 35-45, 1998. PubMed: 9474241"
Depositors:	Carlos Augusto Gomes Soares - UFRJ
ATCC:	HTB-177