

PC-12 | 500311

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Description

PC-12 is a cell line derived from a rat pituitary tumor. It is a clonal cell line that grows in suspension and is characterized by its ability to produce growth hormone (GH) and prolactin (Prl). The cells are highly proliferative and are used in research to study the regulation of GH and Prl secretion. PC-12 cells are also used in the study of neuroendocrine differentiation and the effects of various growth factors and hormones on cell growth and differentiation.

Organism Rat

Tissue Pituitary gland

Disease Pituitary tumor

Synonyms PC12, PC12.1, PC12.2, PC12.3, PC12.4, PC12.5, PC12.6, PC12.7, PC12.8, PC12.9, PC12.10, PC12.11, PC12.12, PC12.13, PC12.14, PC12.15, PC12.16, PC12.17, PC12.18, PC12.19, PC12.20, PC12.21, PC12.22, PC12.23, PC12.24, PC12.25, PC12.26, PC12.27, PC12.28, PC12.29, PC12.30, PC12.31, PC12.32, PC12.33, PC12.34, PC12.35, PC12.36, PC12.37, PC12.38, PC12.39, PC12.40, PC12.41, PC12.42, PC12.43, PC12.44, PC12.45, PC12.46, PC12.47, PC12.48, PC12.49, PC12.50, PC12.51, PC12.52, PC12.53, PC12.54, PC12.55, PC12.56, PC12.57, PC12.58, PC12.59, PC12.60, PC12.61, PC12.62, PC12.63, PC12.64, PC12.65, PC12.66, PC12.67, PC12.68, PC12.69, PC12.70, PC12.71, PC12.72, PC12.73, PC12.74, PC12.75, PC12.76, PC12.77, PC12.78, PC12.79, PC12.80, PC12.81, PC12.82, PC12.83, PC12.84, PC12.85, PC12.86, PC12.87, PC12.88, PC12.89, PC12.90, PC12.91, PC12.92, PC12.93, PC12.94, PC12.95, PC12.96, PC12.97, PC12.98, PC12.99, PC12.100

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Age 1-3 months

Gender Male

Ethnicity Rat

Morphology Epithelial cells

Growth properties PC-12 cells are highly proliferative and grow in suspension. They are characterized by their ability to form a dense monolayer of cells in the presence of serum. The cells are highly sensitive to growth factors and hormones, and their growth is regulated by these factors. PC-12 cells are also highly sensitive to various cytotoxic agents and are used in research to study the effects of these agents on cell growth and survival.

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Citation PC-12 (Rat Pituitary Tumor Cell Line) | 500311

Biosafety level 1

NCBI_TaxID 10116

CellosaurusAccession CVCL_S979

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Thawing and Culturing Cells

1. Thaw the vial quickly in a 37°C water bath. Transfer the cells to a pre-warmed medium.
2. Centrifuge the cells at 300 x g for 3 minutes. Resuspend the cells in 100 µl of medium.
3. Seed the cells into a 96-well plate (37 wells) at a density of 100,000 cells per well.
4. Incubate the cells for 70% confluency.
5. Harvest the cells after 15 days. Seed 8 wells per condition.
6. Seed 300 x 3 cells per well.
7. Incubate for 10 days. Harvest the cells.
8. Harvest the cells.

Incubation Atmosphere 37 °C, 5% CO₂

Flask Coating Non-adhesive

Freezing Procedure Harvest cells and freeze at -78 °C.

Shipping Conditions -78 °C

Storage Conditions -150 °C to -196 °C

HLA

Sterility Sterile, PCR negative