

Product sheet

PC-12 | 500311

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Description
PC-12 is a rat neuroblastoma cell line that is highly sensitive to nerve growth factor (NGF). It is a clonal cell line derived from a rat neuroblastoma tumor. PC-12 cells are used in various biological assays, including studies on cell growth, differentiation, and signaling pathways. They are particularly useful for studying the effects of neurotrophic factors and for investigating the mechanisms of neuronal cell death and survival.

Organism Rat

Tissue Neuroblastoma

Disease Neuroblastoma

Metastatic site Lung, liver, spleen, and other organs

Applications Cell culture, differentiation, signaling studies, and drug screening

Synonyms PC12, PC12.1, PC12.2, PC12.3, PC12.4, PC12.5, PC12.6, PC12.7, PC12.8, PC12.9, PC12.10

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Age 1-2 weeks

Gender Male

Ethnicity Rat

Morphology Epithelial

Cell type Neuroblastoma

Growth properties Adherent, requires NGF for growth

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Citation PC-12 (ATCC CRL-2522) | 500311

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Biosafety level	1
NCBI_TaxID	10116
CellosaurusAccession	CVCL_S979
GMO Status	

Receptors expressed	(NGF)
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Tumorigenic	
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Products	
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Karyotype	40 x38 xXY
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Culture Medium	RPMI 1640 2.0 2.0 NaHCO3 (820700a)
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Supplements	10% FBS
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Dissociation Reagent	TrypLE Express
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Subculturing	
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Seeding density	1 x 10 ⁴
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Fluid renewal	2-3
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Post-Thaw Recovery	48
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Freeze medium	50% + 40% + 10% DMSO CM-1
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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 10 ml of pre-warmed medium.
3. Seed the cells into a 25 cm² flask containing 10 ml of pre-warmed medium.
4. Incubate the cells at 37°C in a 5% CO₂ atmosphere until they reach 70% confluency.
5. Harvest the cells by trypsinization. Seed them into a 25 cm² flask containing 10 ml of pre-warmed medium.
6. Incubate the cells at 37°C in a 5% CO₂ atmosphere until they reach 70% confluency.
7. Harvest the cells by trypsinization. Seed them into a 25 cm² flask containing 10 ml of pre-warmed medium.
8. Incubate the cells at 37°C in a 5% CO₂ atmosphere until they reach 70% confluency.

Incubation Atmosphere 37°C, 5% CO₂

Flask Coating Not required

Freezing Procedure Harvest cells by trypsinization. Resuspend in freezing medium. Freeze at -150°C.

Shipping Conditions Ship at -150°C to -196°C.

Storage Conditions Store at -150°C to -196°C.

PC-12 / HLA

Sterility

PC-12 cells are supplied as a suspension in a sterile medium. The cells are free of mycoplasmas and other contaminants. The cells are tested for sterility using PCR.

XXXXXXXXPC-12 | 500311

XXXXXXXXXXXXXXXXSTR
Rat_D1Wox31: 100
Rat_D2Wox37: 156
Rat_D19Wox11: 228
Rat_D10Wox8: 262,266
Rat_D4Wox7: 145
Rat_D2Wox27: 207
Rat_D5Rat33: 116X118X120
Rat_D10Wox11: 174
Rat_D1Wox23: 226X23
Rat_D12Wox1: 402,406
Rat_D6Wox2: 104
Rat_D8Wox7: 182
Rat_D6Cebr1: 229X231X233
SRY: xY