

Primary Rat Spermatogonium Cells (SPC)

SKU: CDS11442 | Category: Primary Cells — Rat

Validation & Biomarker Data Guide · Lineage classification: Reproductive/gonadal cell (granulosa, Sertoli, spermatogonial)

1. Product Overview

Primary Rat Spermatogonium Cells (SPC) is a primary cell product from rat Testis for physiologically relevant in vitro studies. The product is particularly relevant to Reproductive science and Male reproductive cell series research. It can support research in cell physiology, signaling, metabolism, toxicology, drug response and cell-based assay development where a primary-cell model is preferred. Culture and passage conditions should follow the product-specific protocol. For research use only.

Primary tissue / source: Testis | Growth type: Adherent Cells | Tumorigenic status: Normal Cells | Pack size: 1 x 0.5 million cells

2. Typical Applications

- Reproductive science
- Male reproductive cell series
- Reproductive system

3. Identity & Phenotypic Marker Panel

A representative identity panel for reproductive/gonadal cell (granulosa, sertoli, spermatogonial) products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

Marker	Expected Result	Range
FSH receptor / Steroidogenic markers (granulosa/Sertoli)	Positive	50–88% positive
CD45	Negative / low	≤5% (background)

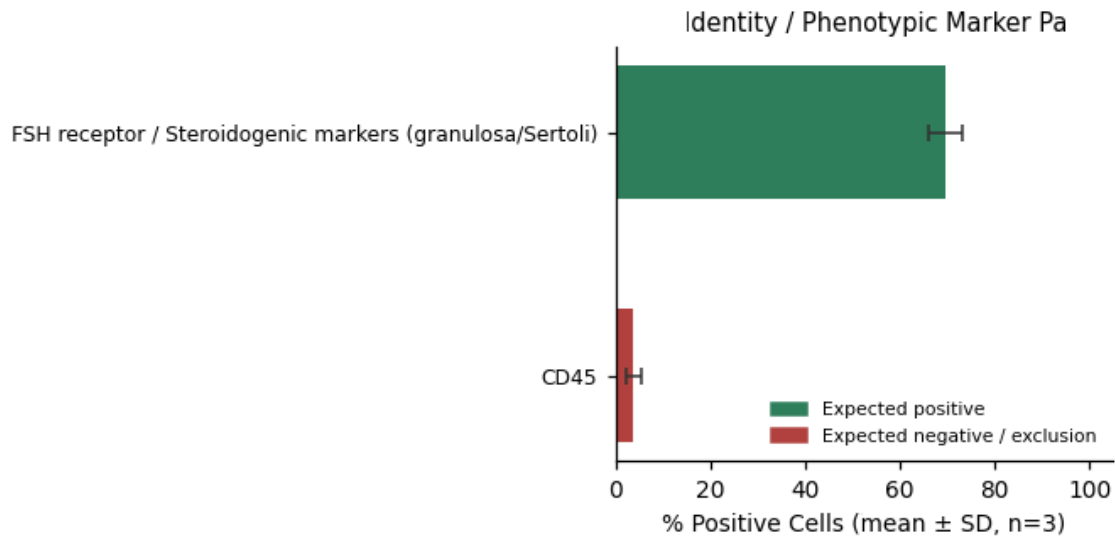


Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

4. Growth Kinetics & Viability

Growth and viability trends over 120 hours in standard culture conditions.

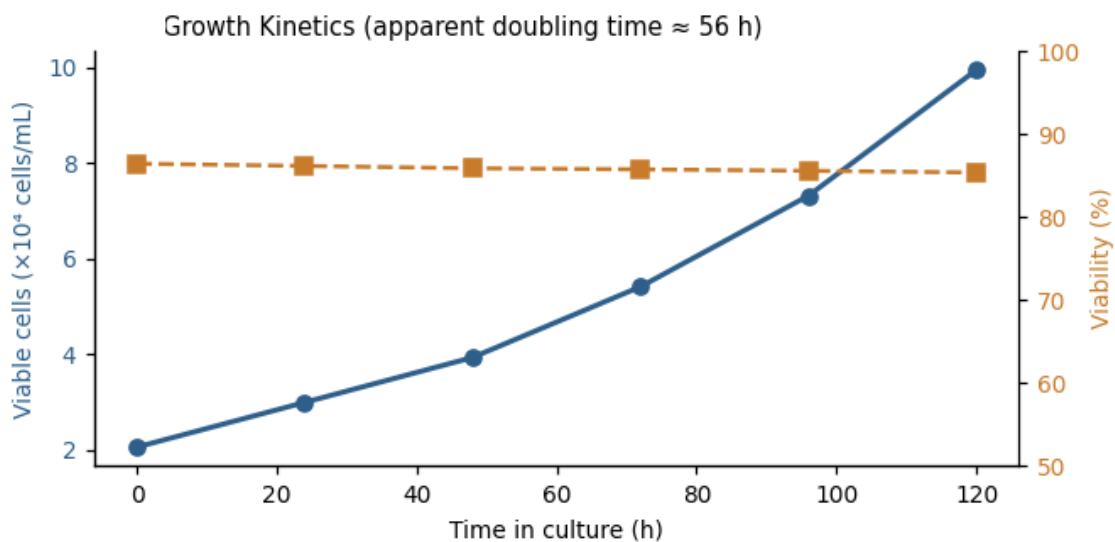


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

5. Functional Validation Assay

Steroidogenic functional assay: Hormone-stimulated (FSH/testosterone) steroid output (e.g. estradiol or androgen-binding protein) quantified by ELISA to confirm gonadal functional identity.

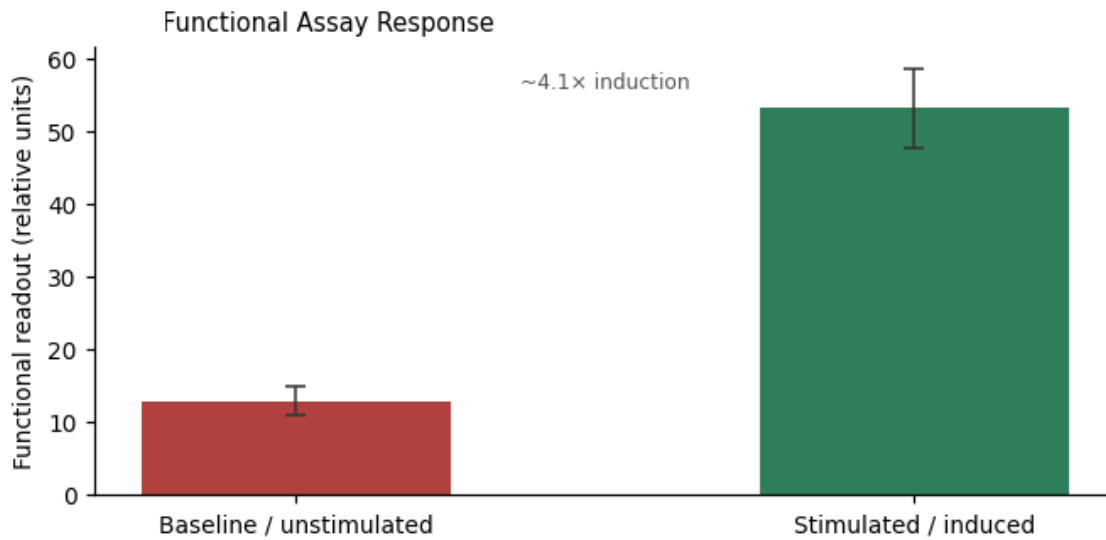


Figure 3. Functional assay readout — ~4.1x induction over baseline.

6. QC Acceptance Criteria

Acceptance Criterion	Result
Marker panel consistent with gonadal lineage by ICC	PASS
Hormone-responsive functional output confirmed	PASS
Apparent population doubling time	≈ 56 hours
Functional assay outcome	~4.1x induction over baseline

7. Handling & Culture Notes

- Refer to the product-specific Certificate of Analysis and datasheet for validated culture medium, seeding density, and passaging recommendations.
- As with any primary cell or cell line, confirm mycoplasma-negative status, expected morphology by phase-contrast microscopy, and viability by trypan blue or equivalent dye-exclusion assay at each passage before use in downstream assays.