

Primary Rat Peripheral Blood Neutrophils (PBNs)

SKU: CDS11538 | Category: Primary Cells — Rat

Validation & Biomarker Data Guide · Lineage classification: Suspension cell line (general)

1. Product Overview

Primary Rat Peripheral Blood Neutrophils (PBNs) is a primary cell product from rat Peripheral Blood for physiologically relevant in vitro studies. The product is particularly relevant to Hematology and Circulatory system 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: Peripheral Blood | Growth type: Suspension Cells | Tumorigenic status: Normal Cells | Pack size: 1 x 0.5 million cells

2. Typical Applications

- Hematology
- Circulatory system

3. Identity & Phenotypic Marker Panel

A representative identity panel for suspension cell line (general) products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

Marker	Expected Result	Range
Lineage-specific surface marker panel (product-specific)	Positive	65–96% positive
Adherent-lineage markers	Negative / low	≤10% (background)

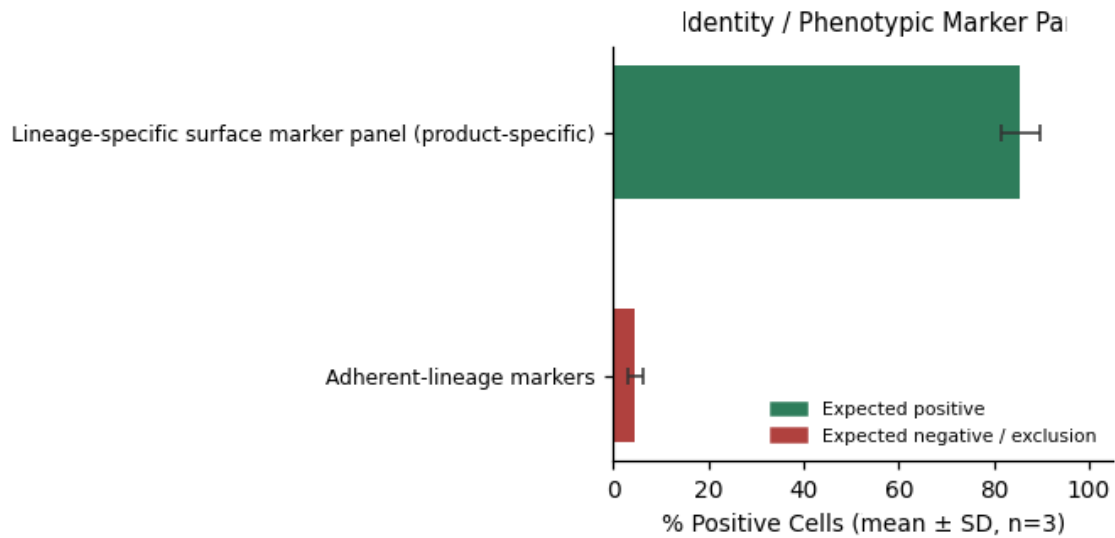


Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

4. Growth Kinetics & Viability

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

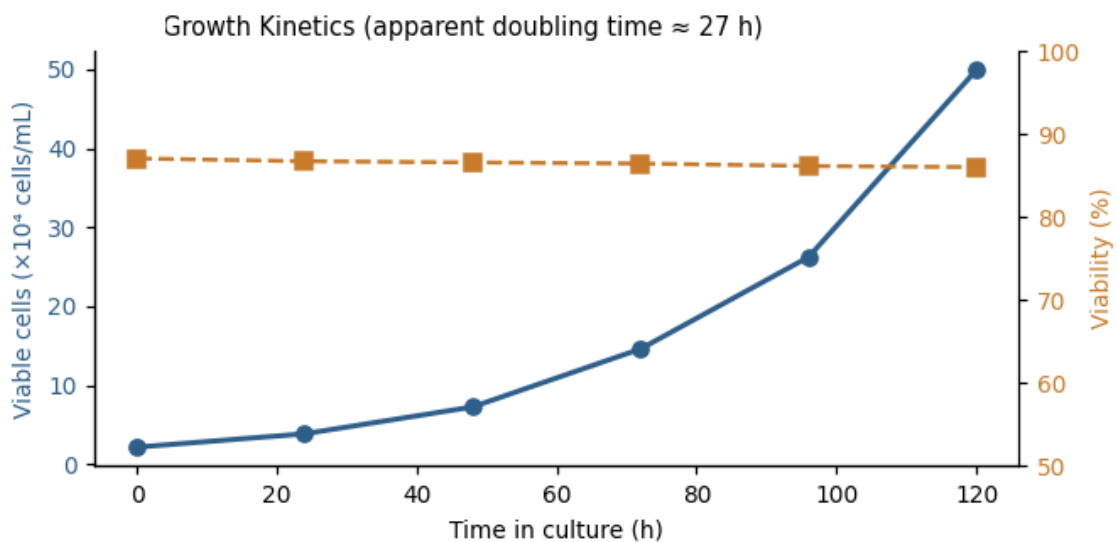


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

5. Functional Validation Assay

Proliferation / functional assay: Growth-curve/viability assay alongside a lineage-appropriate functional readout (cytokine secretion, cytotoxicity, or antibody titer as applicable).

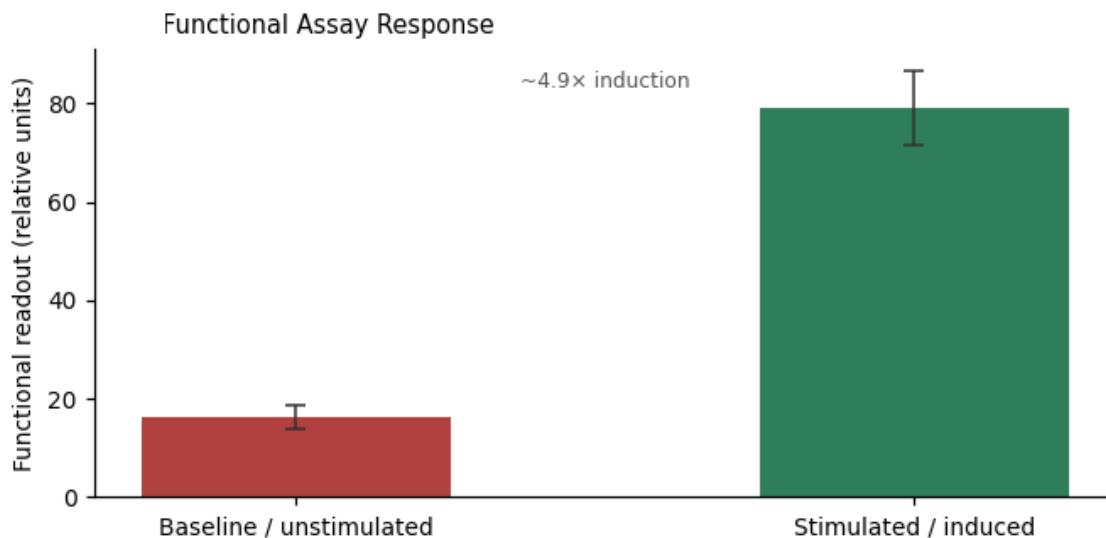


Figure 3. Functional assay readout — ~4.9× induction over baseline.

6. QC Acceptance Criteria

Acceptance Criterion	Result
Marker panel consistent with lineage reference sheet	PASS
Negative for mycoplasma by PCR	PASS
Apparent population doubling time	≈ 27 hours
Functional assay outcome	~4.9× 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.