BALL-1 Human B Lymphocyte Acute Leukemia Cell Line

SKU: CDS3937 | Category: Cell Lines — Cancer Cell Lines

Validation & Biomarker Data Guide · Lineage classification: B lymphocyte

1. Product Overview

BALL-1 Human B Lymphocyte Acute Leukemia Cell Line is an established tumor-derived cell line for in vitro oncology research. It is suitable for studies of tumor cell biology, proliferation and viability, signaling, biomarkers, drug response, cytotoxicity and cell-based assay development. The model can be incorporated into screening and mechanistic workflows under validated culture conditions. For research use only.

Growth type: Suspension Cells | Tumorigenic status: Tumor Cells | Pack size: 1 x 1 million cells

2. Typical Applications

- Cell-based assay development, pathway and mechanism studies, biomarker characterization, and comparative functional testing consistent with this lineage.

3. Identity & Phenotypic Marker Panel

A representative identity panel for b lymphocyte products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

Marker	Expected Result	Range
CD19	Positive	80–98% positive
CD20	Positive	75–97% positive
HLA-DR	Positive	70–95% positive
CD3	Negative / low	≤5% (background)
CD14	Negative / low	≤4% (background)

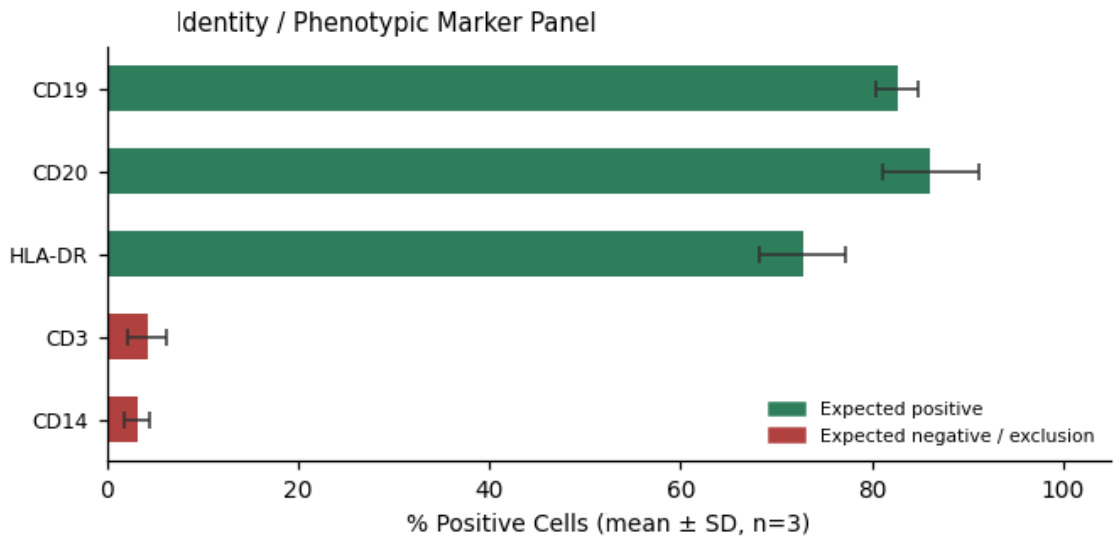


Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

4. Growth Kinetics & Viability

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

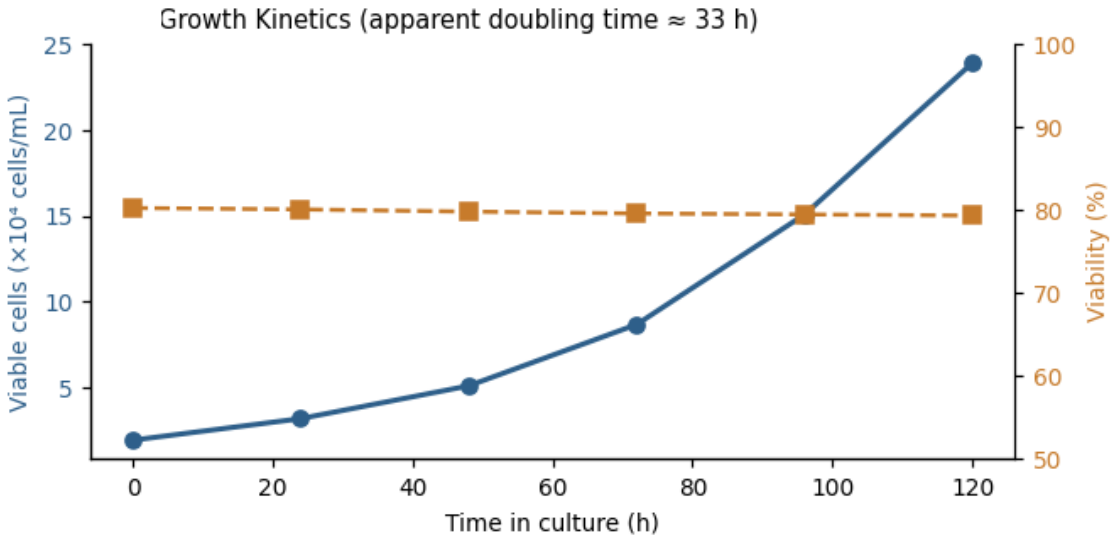


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

5. Functional Validation Assay

B-cell activation assay: Stimulation with anti-IgM/CpG or CD40L to assess proliferation and immunoglobulin secretion (IgM/IgG) by ELISA.

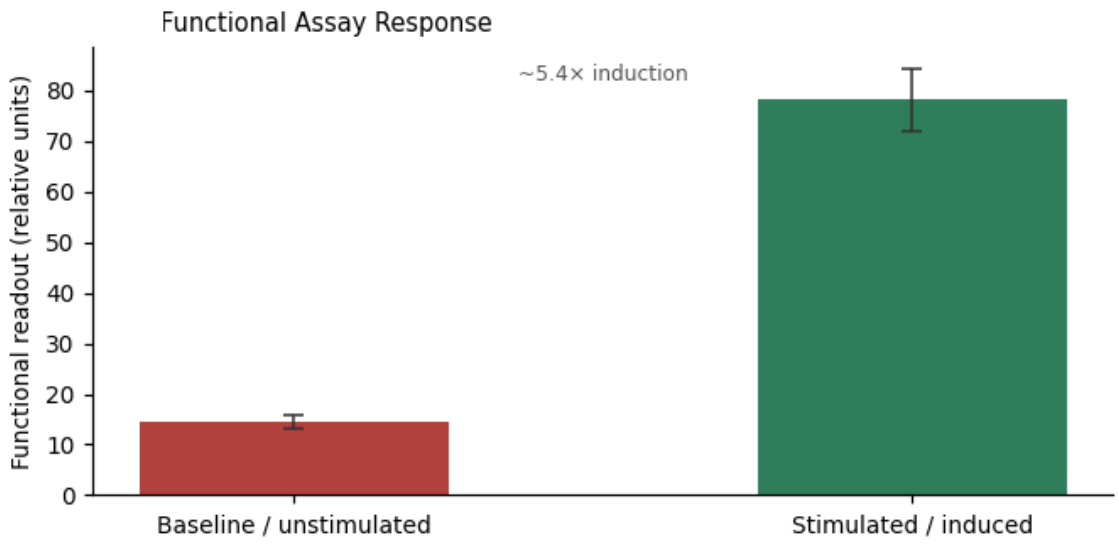


Figure 3. Functional assay readout — ~5.4× induction over baseline.

6. QC Acceptance Criteria

Acceptance Criterion	Result
≥80% CD19+ by flow cytometry	PASS
Immunoglobulin secretion confirmed by ELISA	PASS
Negative for mycoplasma by PCR	PASS
Apparent population doubling time	≈ 33 hours
Functional assay outcome	~5.4× 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.