

# ARH-77 Human Leukemia Tumor Cell Line

SKU: CDS2722 | Category: Cell Lines — Cancer Cell Lines

**Validation & Biomarker Data Guide** · Lineage classification: Leukemia / lymphoma cell line

## 1. Product Overview

ARH-77 Human Leukemia Tumor 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 leukemia / lymphoma cell line products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

| Marker                                         | Expected Result | Range            |
|------------------------------------------------|-----------------|------------------|
| CD45                                           | Positive        | 85–99% positive  |
| Lineage marker (CD3/CD19/CD33, line-dependent) | Positive        | 50–95% positive  |
| Pan-cytokeratin                                | Negative / low  | ≤5% (background) |

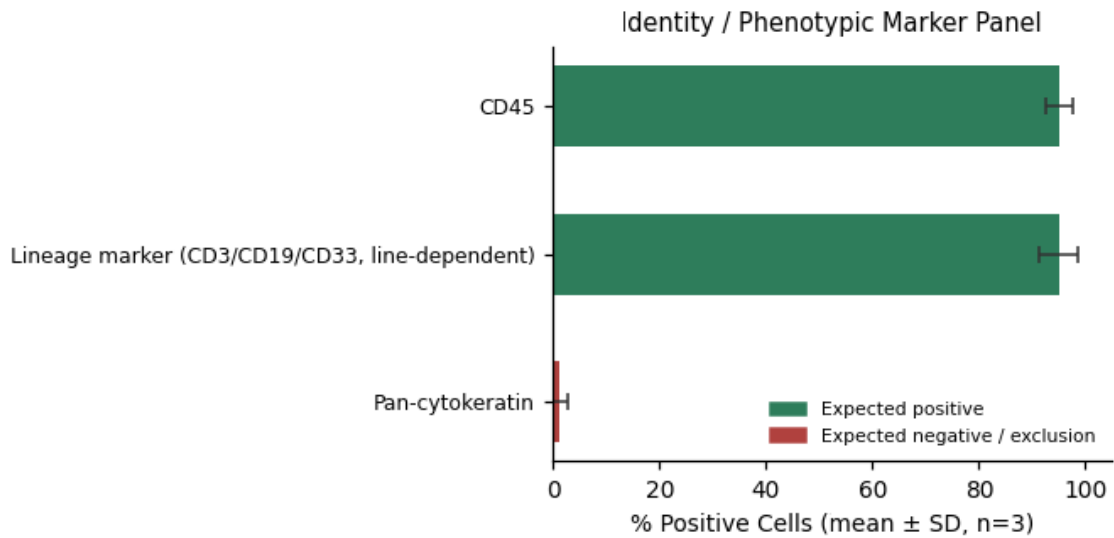


Figure 1. Marker expression profile (mean  $\pm$  SD, n = 3 replicates).

#### 4. Growth Kinetics & Viability

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

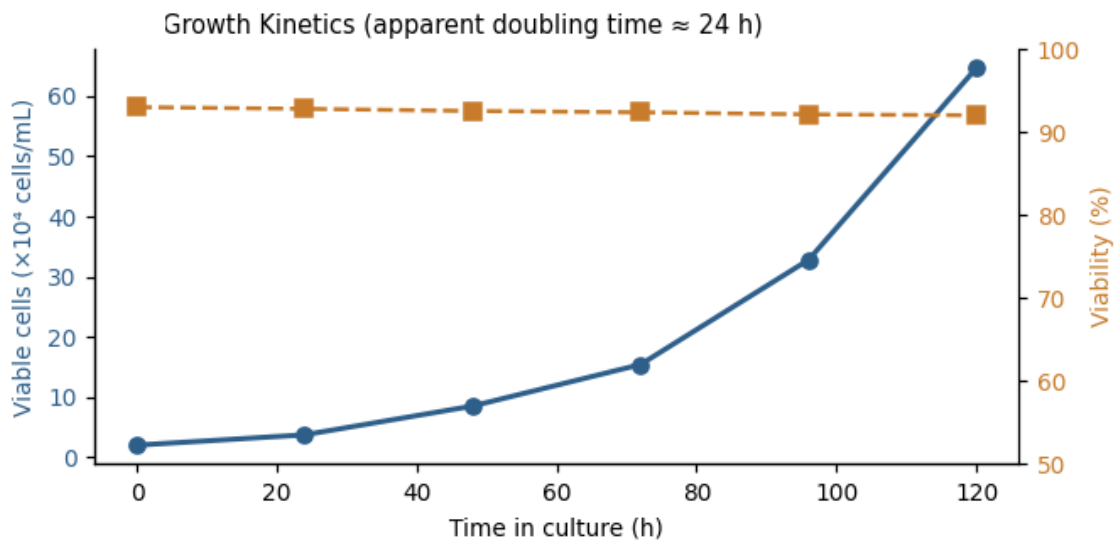


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

#### 5. Functional Validation Assay

**Proliferation / drug-sensitivity assay:** MTT/CellTiter-Glo or trypan-blue growth assay with a reference chemotherapeutic (e.g. doxorubicin) to generate an IC<sub>50</sub> curve.

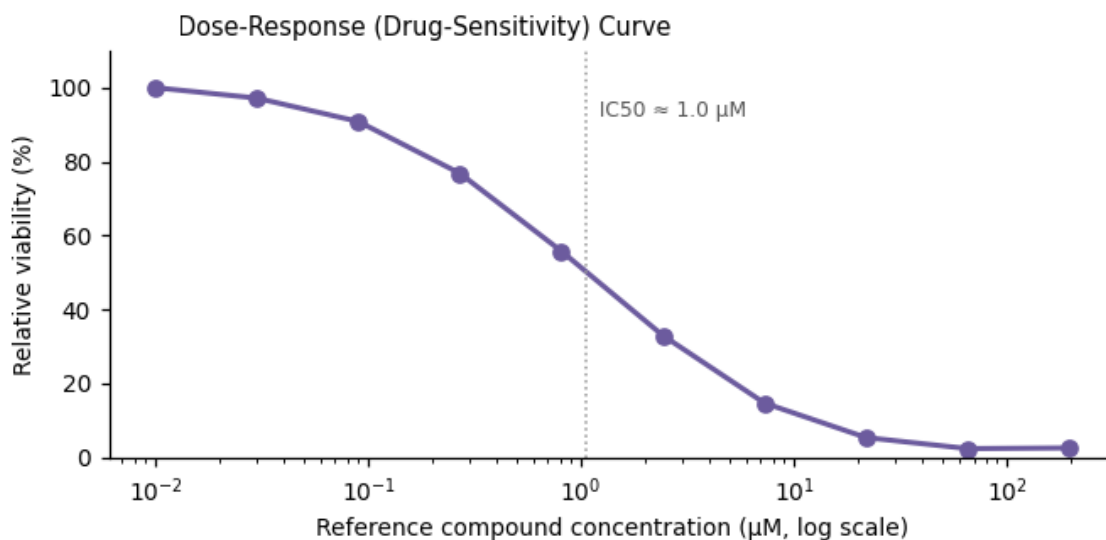


Figure 3. Functional assay readout — IC<sub>50</sub> ≈ 1.0 μM.

## 6. QC Acceptance Criteria

| Acceptance Criterion                                        | Result                    |
|-------------------------------------------------------------|---------------------------|
| Authenticated by STR profiling                              | PASS                      |
| ≥85% CD45+ by flow cytometry                                | PASS                      |
| IC <sub>50</sub> within historical reference range for line | PASS                      |
| Apparent population doubling time                           | ≈ 24 hours                |
| Functional assay outcome                                    | IC <sub>50</sub> ≈ 1.0 μM |

## 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.