A-375 Human Malignant Melanoma Cell Line

SKU: CDS2266 | Category: Cell Lines — Cancer Cell Lines

Validation & Biomarker Data Guide · Lineage classification: Melanoma cell line

1. Product Overview

A-375 Human Malignant Melanoma 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: Adherent 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 melanoma cell line products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

Marker	Expected Result	Range
S100	Positive	65–95% positive
HMB-45 (line-dependent)	Positive	0–85% positive
Melan-A	Positive	40–85% positive
Pan-cytokeratin	Negative / low	≤15% (background)

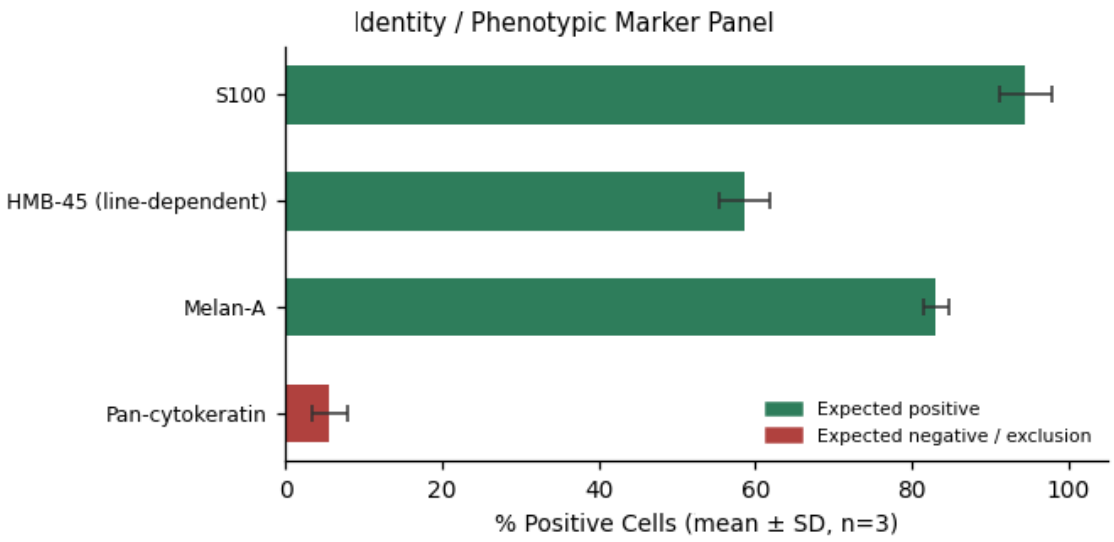


Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

4. Growth Kinetics & Viability

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

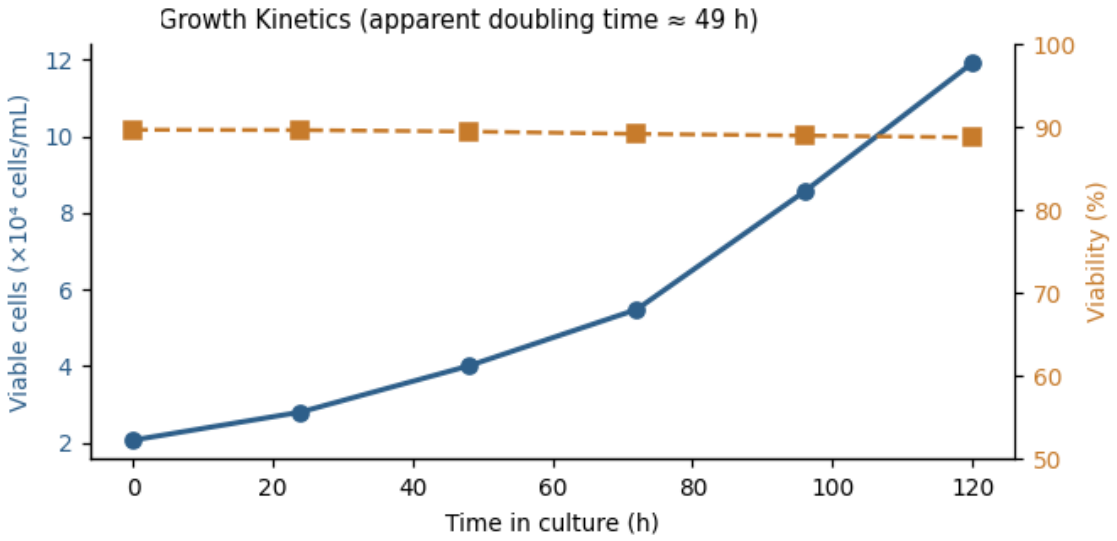


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

5. Functional Validation Assay

Proliferation / drug-sensitivity assay: MTT/CellTiter-Glo dose-response with a BRAF inhibitor (e.g. vemurafenib, if BRAF-mutant) or dacarbazine to generate an IC50 curve.

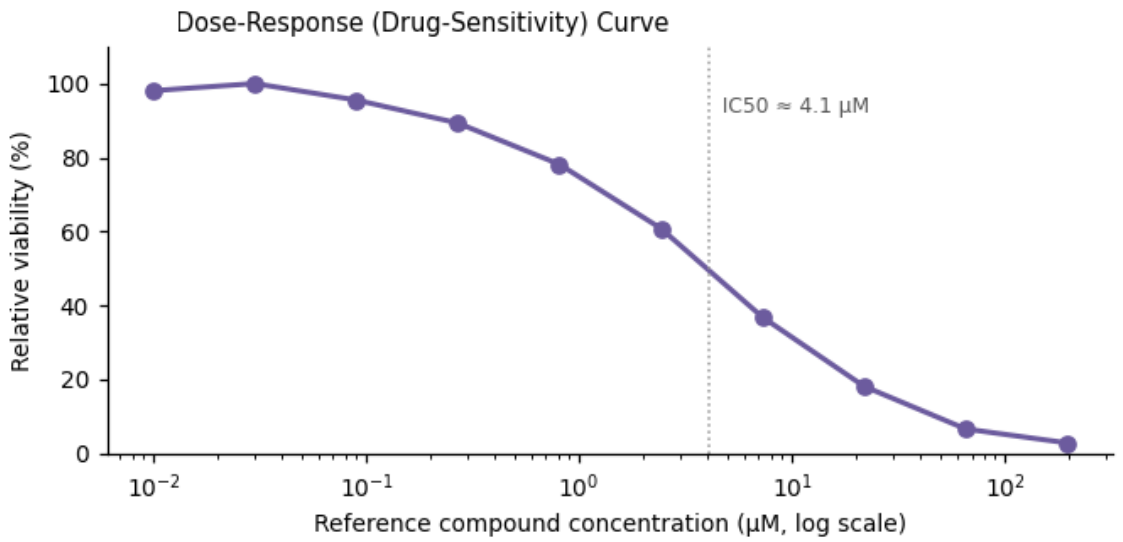


Figure 3. Functional assay readout — IC50 ≈ 4.1 µM.

6. QC Acceptance Criteria

Acceptance Criterion	Result
Authenticated by STR profiling	PASS
≥50% S100+ by ICC	PASS
IC50 within historical reference range for line	PASS
Apparent population doubling time	≈ 49 hours
Functional assay outcome	IC50 ≈ 4.1 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.