

# Human Glioblastoma Cell Line, #A172

SKU: CDS10002 | Category: Cell Lines — Cancer Cell Lines

**Validation & Biomarker Data Guide** · Lineage classification: Glioblastoma / brain tumor cell line

## 1. Product Overview

Human Glioblastoma Cell Line, #A172 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.

Primary tissue / source: Glioblastoma (Brain) | Growth type: Adherent Cells | Tumorigenic status: Tumor Cells | Pack size: 1 x 1 million cells

## 2. Typical Applications

- 1. Cancer Biology Research
- Mechanistic Studies
- Gene Function Studies
- Signal Transduction
- 2. Drug Discovery and Development
- Screening of Anticancer Compounds
- IC50/EC50 Studies
- Mechanism of Action
- Combination Therapies
- 3. Assay Development
- ELISA and Immunoassays
- Flow Cytometry Assays

## 3. Identity & Phenotypic Marker Panel

A representative identity panel for glioblastoma / brain tumor cell line products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

| Marker                | Expected Result | Range           |
|-----------------------|-----------------|-----------------|
| GFAP (line-dependent) | Positive        | 0–85% positive  |
| Nestin                | Positive        | 40–85% positive |

| Marker          | Expected Result | Range             |
|-----------------|-----------------|-------------------|
| Ki-67           | Positive        | 20–60% positive   |
| Pan-cytokeratin | Negative / low  | ≤15% (background) |

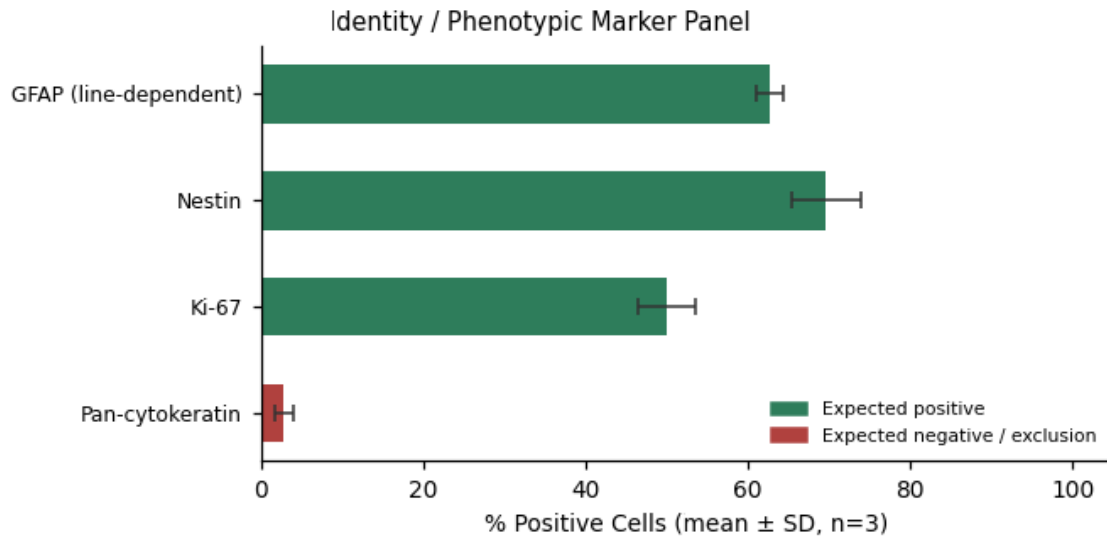


Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

#### 4. Growth Kinetics & Viability

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

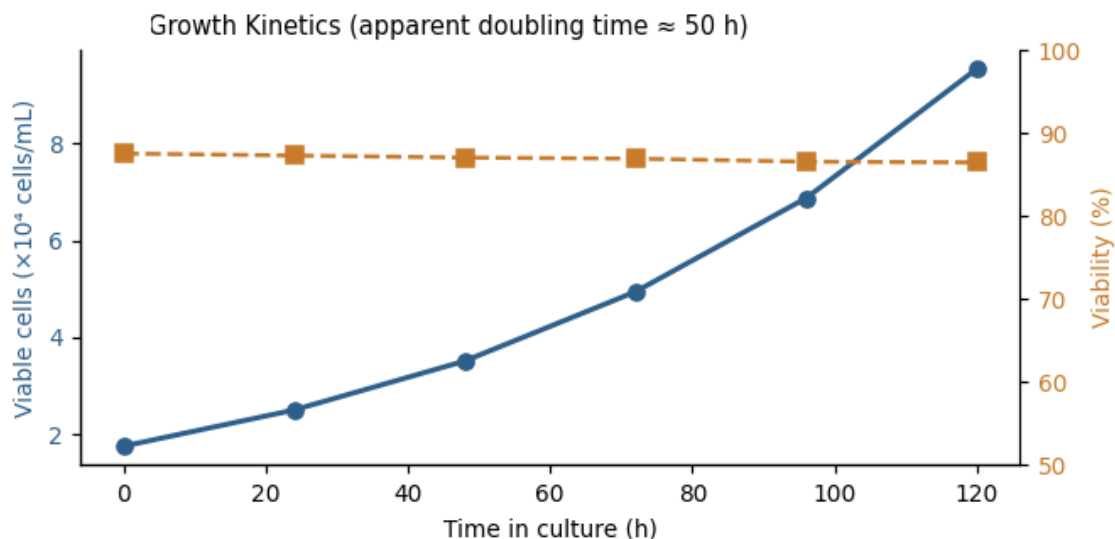


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

## 5. Functional Validation Assay

**Proliferation / invasion assay:** MTT/CellTiter-Glo dose-response with temozolomide, plus transwell invasion assay to confirm invasive functional phenotype.

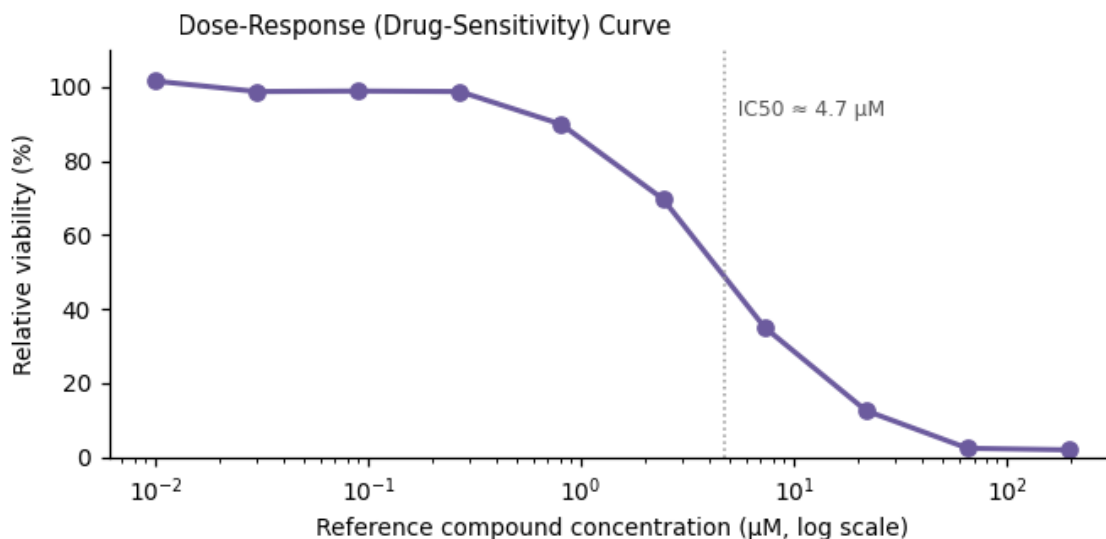


Figure 3. Functional assay readout —  $\text{IC}_{50} \approx 4.7 \mu\text{M}$ .

## 6. QC Acceptance Criteria

| Acceptance Criterion                                        | Result                                   |
|-------------------------------------------------------------|------------------------------------------|
| Authenticated by STR profiling                              | PASS                                     |
| $\geq 40\%$ Nestin+ by ICC                                  | PASS                                     |
| $\text{IC}_{50}$ within historical reference range for line | PASS                                     |
| Apparent population doubling time                           | $\approx 50$ hours                       |
| Functional assay outcome                                    | $\text{IC}_{50} \approx 4.7 \mu\text{M}$ |

## 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.