

# C-4 II Human Papillary Tumor Virusassociated Cervix Squamous Cell Carcinoma Cell Line

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SKU: CDS4654 | Category: Cell Lines — Cancer Cell Lines

**Validation & Biomarker Data Guide** · Lineage classification: Tumor-derived cell line (general)

## 1. Product Overview

C-4 II Human Papillary Tumor Virusassociated Cervix Squamous Cell Carcinoma 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 tumor-derived cell line (general) products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

| Marker                                                 | Expected Result | Range             |
|--------------------------------------------------------|-----------------|-------------------|
| <b>Pan-cytokeratin or Vimentin (lineage-dependent)</b> | Positive        | 60–95% positive   |
| <b>Ki-67 (proliferation index)</b>                     | Positive        | 20–60% positive   |
| <b>CD45</b>                                            | Negative / low  | ≤10% (background) |

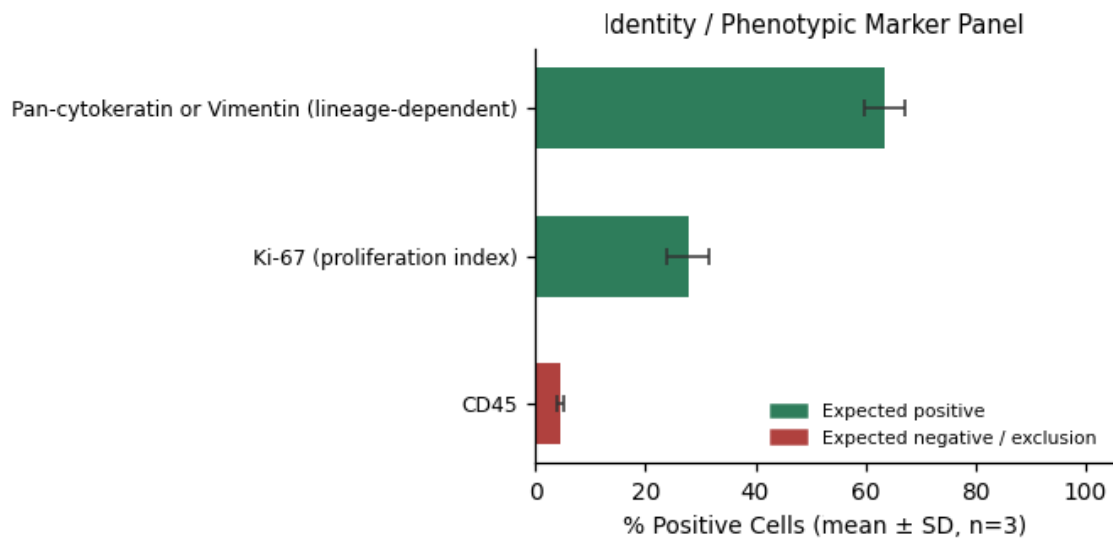


Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

#### 4. Growth Kinetics & Viability

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

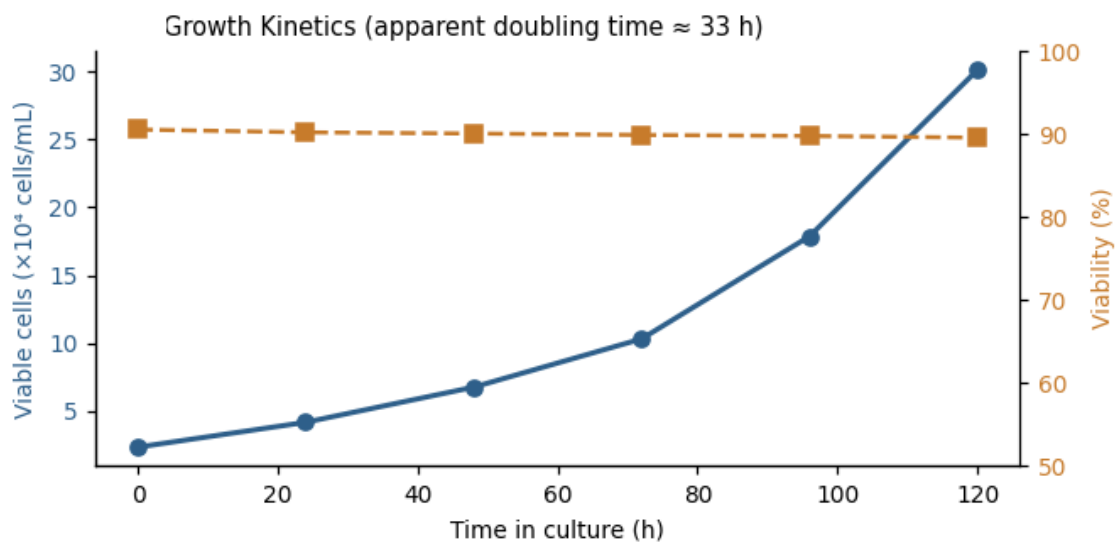


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

#### 5. Functional Validation Assay

**Proliferation / drug-sensitivity assay:** MTT/CellTiter-Glo viability assay across a reference cytotoxic compound dose range to generate an IC<sub>50</sub> curve confirming assay-ready drug responsiveness.

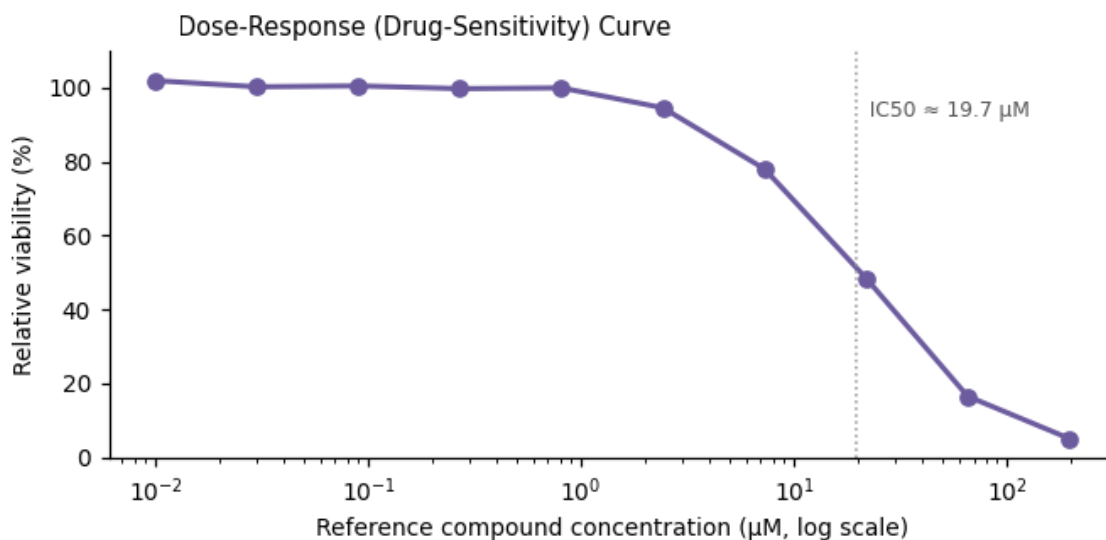


Figure 3. Functional assay readout —  $\text{IC}_{50} \approx 19.7 \mu\text{M}$ .

## 6. QC Acceptance Criteria

| Acceptance Criterion                                                    | Result                                    |
|-------------------------------------------------------------------------|-------------------------------------------|
| Authenticated by STR profiling                                          | PASS                                      |
| Morphology consistent with reference image by phase-contrast microscopy | PASS                                      |
| $\text{IC}_{50}$ within historical reference range for line             | PASS                                      |
| Apparent population doubling time                                       | $\approx 33$ hours                        |
| Functional assay outcome                                                | $\text{IC}_{50} \approx 19.7 \mu\text{M}$ |

## 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.