

# B-CPAP Human Thyroid Carcinoma Cell Line

SKU: CDS3145 | Category: Cell Lines — Cancer Cell Lines

**Validation & Biomarker Data Guide** · Lineage classification: Thyroid carcinoma cell line

## 1. Product Overview

B-CPAP Human Thyroid 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 thyroid carcinoma cell line products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

| Marker                                 | Expected Result | Range             |
|----------------------------------------|-----------------|-------------------|
| TTF-1                                  | Positive        | 40–82% positive   |
| Thyroglobulin (differentiated subtype) | Positive        | 0–75% positive    |
| Pan-cytokeratin                        | Positive        | 75–97% positive   |
| Vimentin                               | Negative / low  | ≤30% (background) |

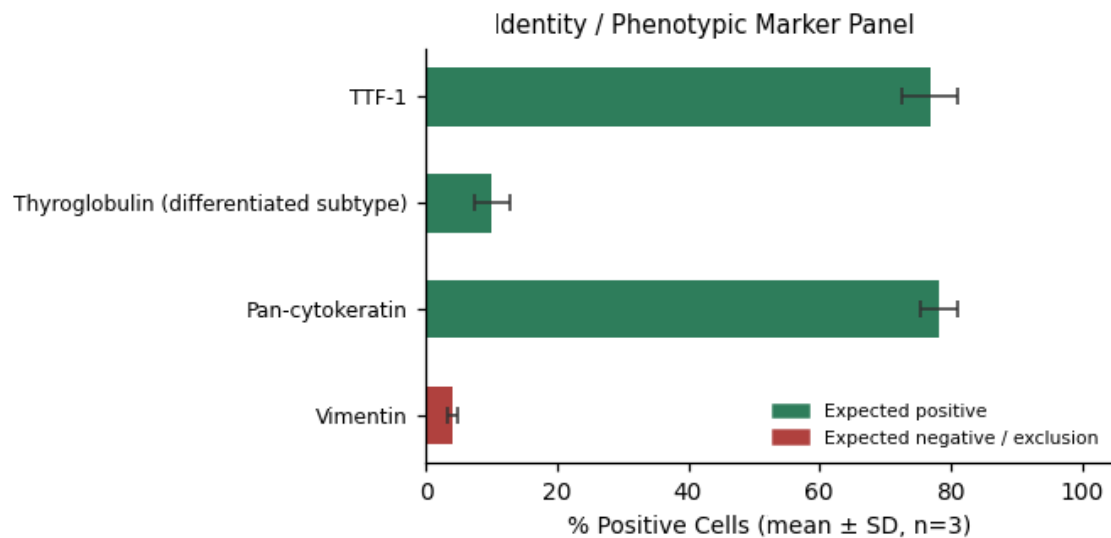


Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

#### 4. Growth Kinetics & Viability

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

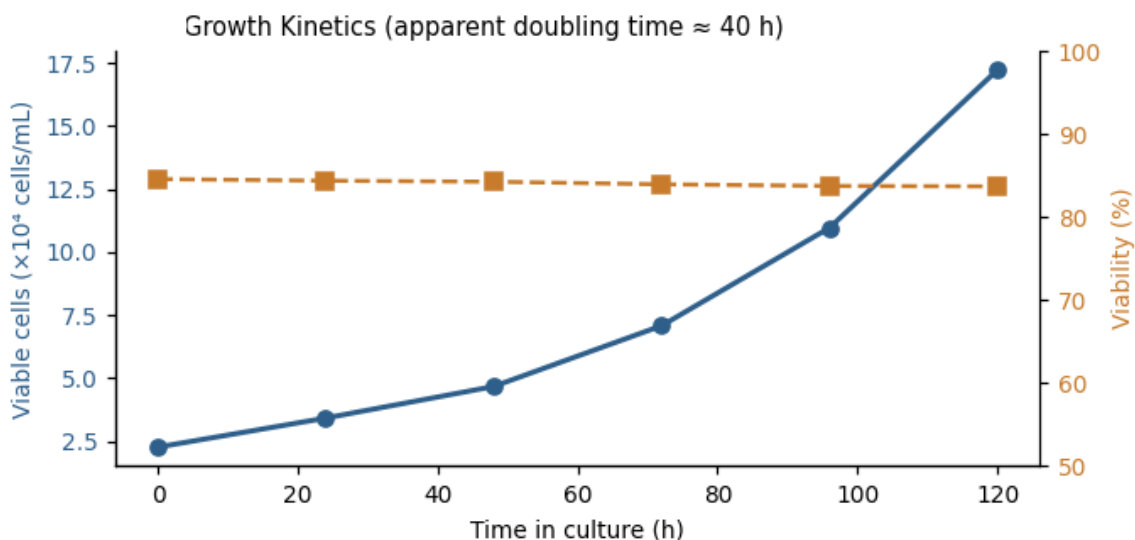


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

#### 5. Functional Validation Assay

**Proliferation / drug-sensitivity assay:** MTT/CellTiter-Glo dose-response with a reference kinase inhibitor (e.g. sorafenib) to generate an IC<sub>50</sub> curve confirming assay-ready drug responsiveness.

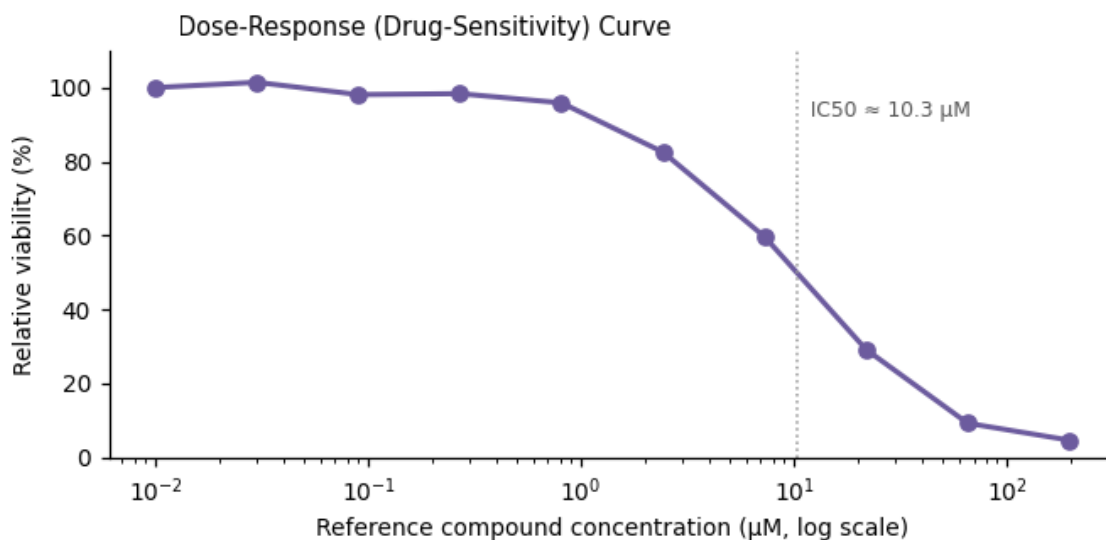


Figure 3. Functional assay readout —  $\text{IC}_{50} \approx 10.3 \mu\text{M}$ .

## 6. QC Acceptance Criteria

| Acceptance Criterion                                        | Result                                    |
|-------------------------------------------------------------|-------------------------------------------|
| Authenticated by STR profiling                              | PASS                                      |
| $\text{IC}_{50}$ within historical reference range for line | PASS                                      |
| Apparent population doubling time                           | $\approx 40$ hours                        |
| Functional assay outcome                                    | $\text{IC}_{50} \approx 10.3 \mu\text{M}$ |

## 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.