# Human Lung Cancer Cell Line, #MSTO-211H

*SKU: CDS10605 | Category: Cell Lines — Cancer Cell Lines*

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

## 1. Product Overview

Human Lung Cancer Cell Line, #MSTO-211H 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: Lung | 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 lung 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 | 40–80% positive |

| Marker | Expected Result | Range |
|---|---|---|
| **Pan-cytokeratin** | Positive | 80–98% positive |
| **CK7** | Positive | 45–85% positive |
| **Vimentin** | Negative / low | ≤30% (background) |

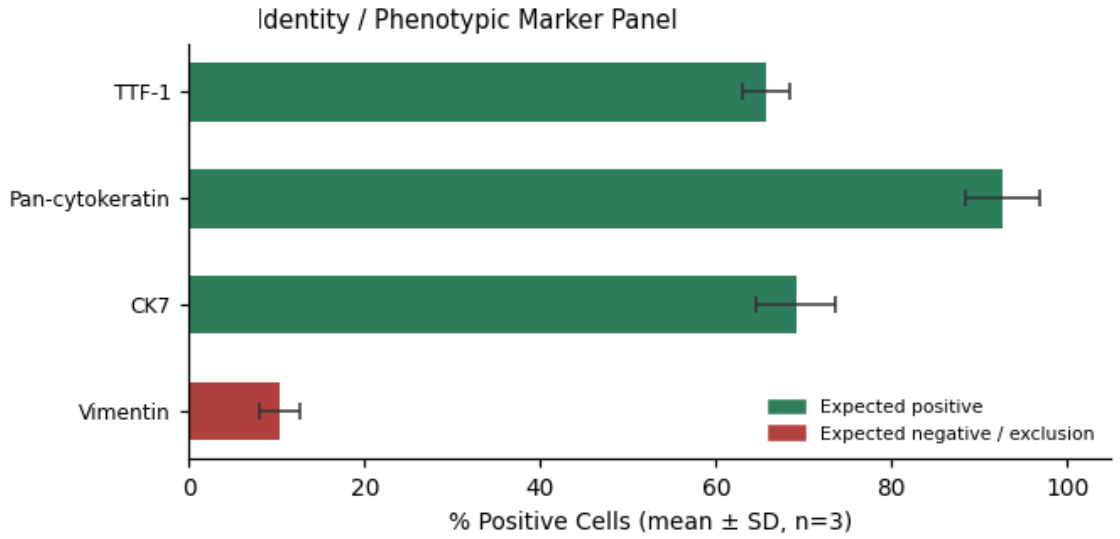



*Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).*

## 4. Growth Kinetics & Viability

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

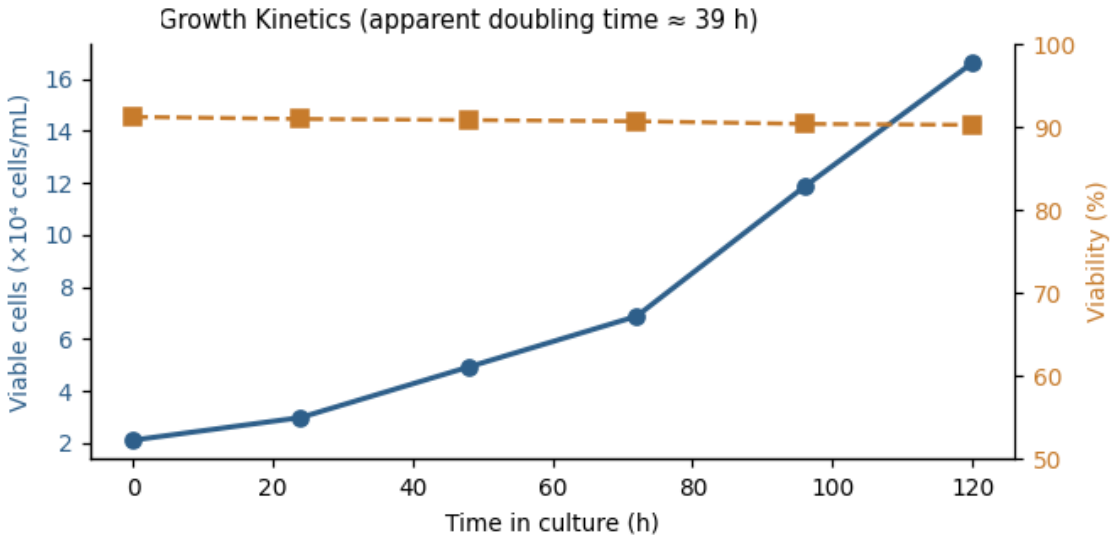



*Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).*

## 5. Functional Validation Assay

**Proliferation / drug-sensitivity assay:** MTT/CellTiter-Glo viability assay across a reference cytotoxic compound (e.g. cisplatin) dose range to generate an IC50 curve confirming assay-ready drug responsiveness.

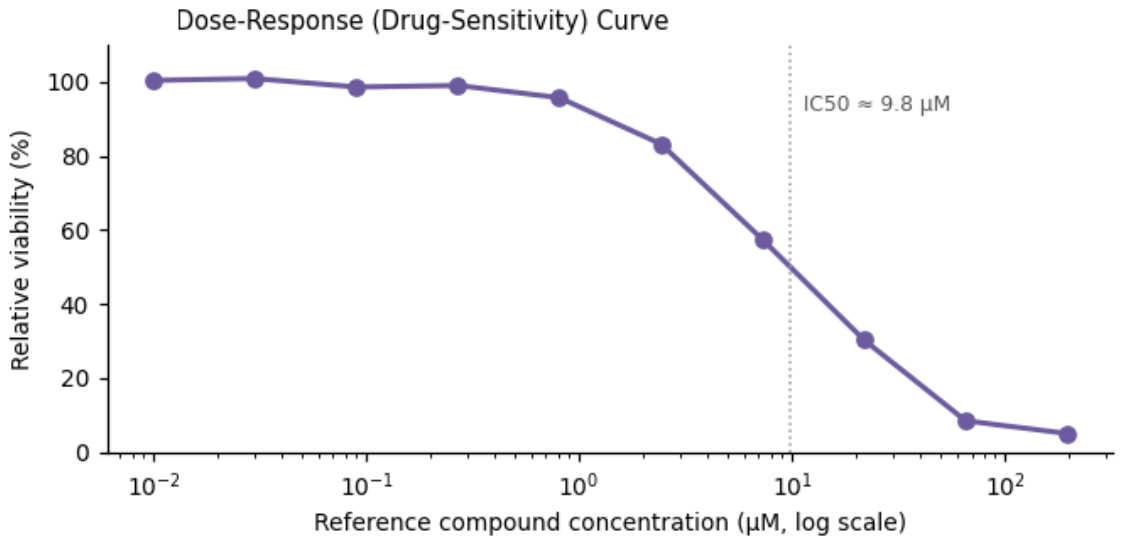



*Figure 3. Functional assay readout — IC50 ≈ 9.8 µM.*

## 6. QC Acceptance Criteria

| Acceptance Criterion | Result |
|---|---|
| **Authenticated by STR profiling** | PASS |
| **≥70% pan-cytokeratin+ by ICC** | PASS |
| **IC50 within historical reference range for line** | PASS |
| **Apparent population doubling time** | ≈ 39 hours |
| **Functional assay outcome** | IC50 ≈ 9.8 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.