Human Embryonic Stem Cell Line H1 (Wa01) , #H1

SKU: CDS10299 | Category: Cell Lines — Stem Cell Lines

Validation & Biomarker Data Guide · Lineage classification: Pluripotent stem cell (ESC/iPSC)

1. Product Overview

Human Embryonic Stem Cell Line H1 (Wa01), #H1 is a stem-cell model for in vitro studies of cell biology, differentiation, developmental pathways, regenerative research and assay development. It can be used where a reproducible stem-cell system is required, with expansion and differentiation conditions optimized for the intended application. For research use only.

Primary tissue / source: Embryonic Stem H1 (Wa01) | Growth type: Adherent Cells | Tumorigenic status: Normal 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 pluripotent stem cell (esc/ipsc) products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

Marker	Expected Result	Range
OCT4	Positive	85–99% positive

Marker	Expected Result	Range
SOX2	Positive	85–99% positive
SSEA-4	Positive	80–98% positive
NANOG	Positive	75–97% positive
SSEA-1	Negative / low	≤10% (background)

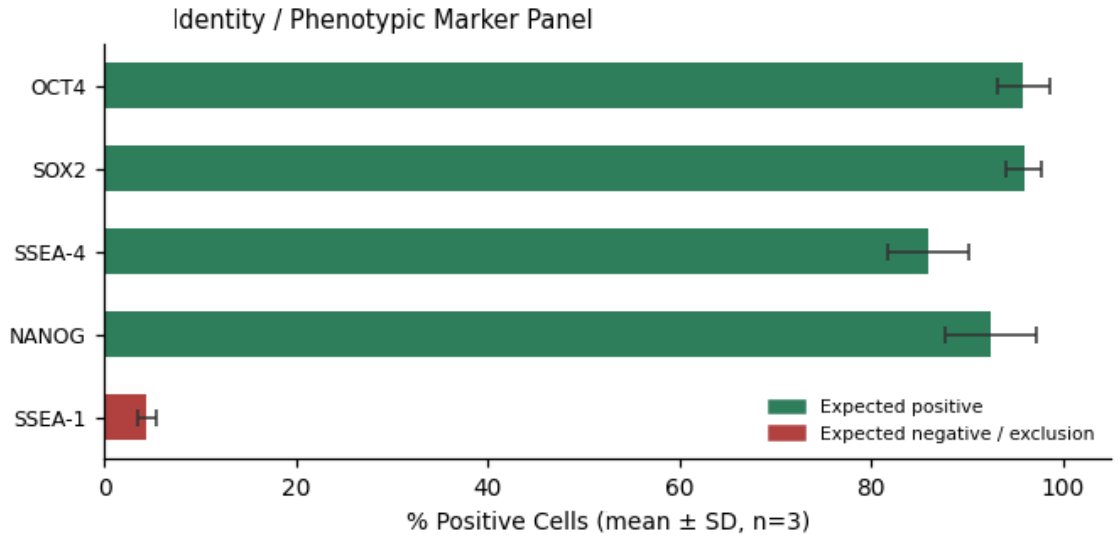


Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

4. Growth Kinetics & Viability

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

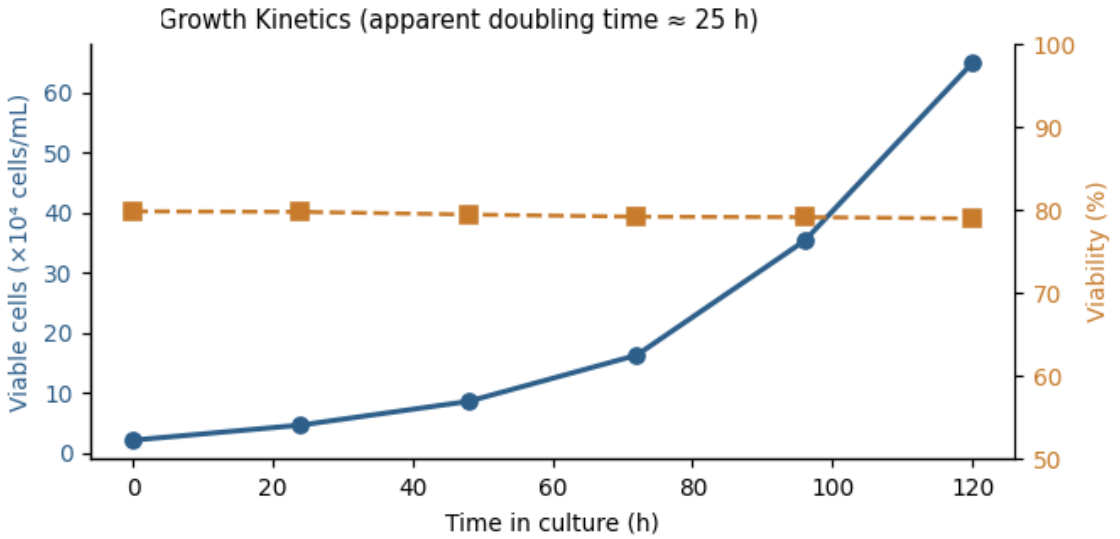


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

5. Functional Validation Assay

Tri-lineage / teratoma-free differentiation assay: Directed differentiation (embryoid body or monolayer) into ectoderm/mesoderm/endoderm lineage markers, confirmed by ICC/qPCR, to demonstrate pluripotency.

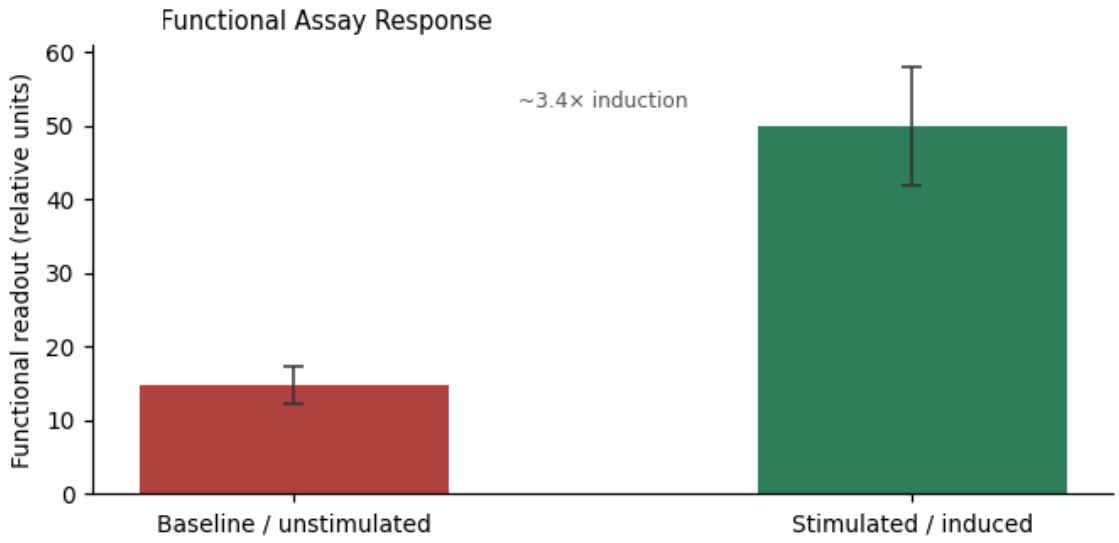


Figure 3. Functional assay readout — ~3.4× induction over baseline.

6. QC Acceptance Criteria

Acceptance Criterion	Result
≥85% OCT4+/SOX2+ by flow cytometry or ICC	PASS
Normal karyotype confirmed	PASS
Confirmed tri-lineage differentiation potential	PASS
Apparent population doubling time	≈ 25 hours
Functional assay outcome	~3.4× induction over baseline

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.