Primary Mouse Visceral Preadipocytes (VPA)

SKU: CDS11010 | Category: Primary Cells — Mouse

Validation & Biomarker Data Guide · Lineage classification: Adipocyte / preadipocyte

1. Product Overview

Primary Mouse Visceral Preadipocytes (VPA) is a primary cell product from mouse Adipose tissue for physiologically relevant in vitro studies. The product is particularly relevant to Adipose cell series and Preadipocytes research. It can support research in cell physiology, signaling, metabolism, toxicology, drug response and cell-based assay development where a primary-cell model is preferred. Culture and passage conditions should follow the product-specific protocol. For research use only.

Primary tissue / source: Adipose tissue | Growth type: Adherent Cells | Tumorigenic status: Normal Cells | Pack size: 1 x 0.5 million cells

2. Typical Applications

- Adipose cell series
- Preadipocytes
- Skeletal, articular and cutaneous systems

3. Identity & Phenotypic Marker Panel

A representative identity panel for adipocyte / preadipocyte products is shown below. Actual per-lot Certificates of Analysis should be consulted for verified identity data.

Marker	Expected Result	Range
PPAR-γ	Positive	60–92% positive
FABP4	Positive	65–93% positive
Perilipin	Positive	60–90% positive
CD31	Negative / low	≤3% (background)
Pan-cytokeratin	Negative / low	≤4% (background)

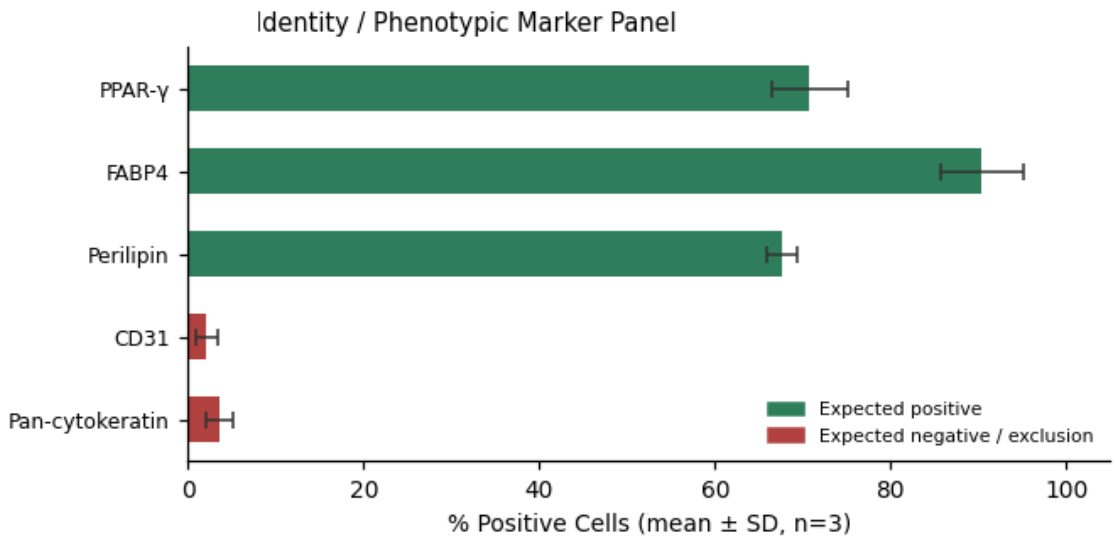

Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

4. Growth Kinetics & Viability

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

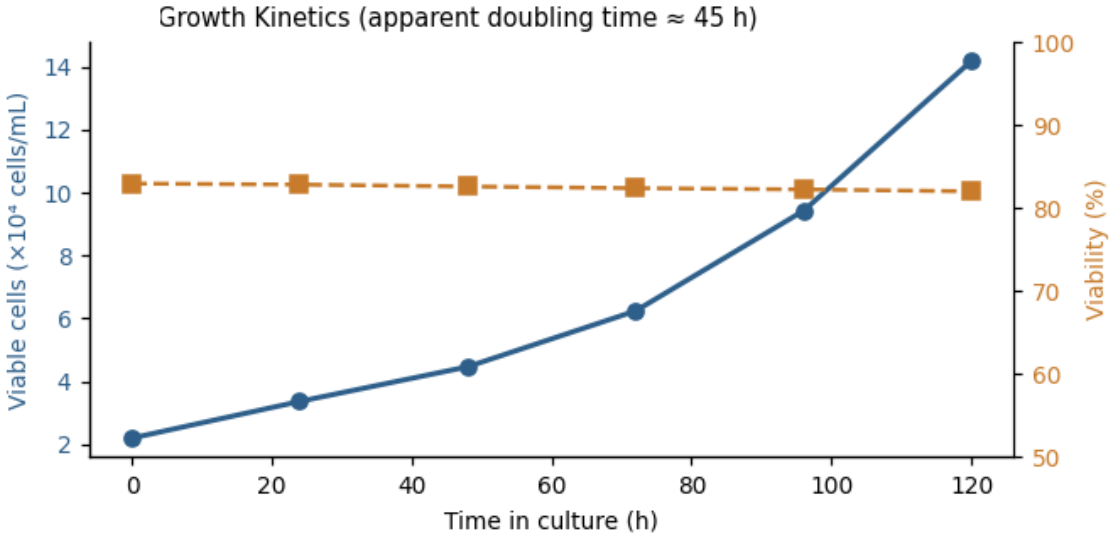

Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

5. Functional Validation Assay

Adipogenic differentiation assay: Oil Red O staining of lipid droplets after adipogenic induction (~10-14 days); adiponectin secretion in supernatant measured by ELISA.

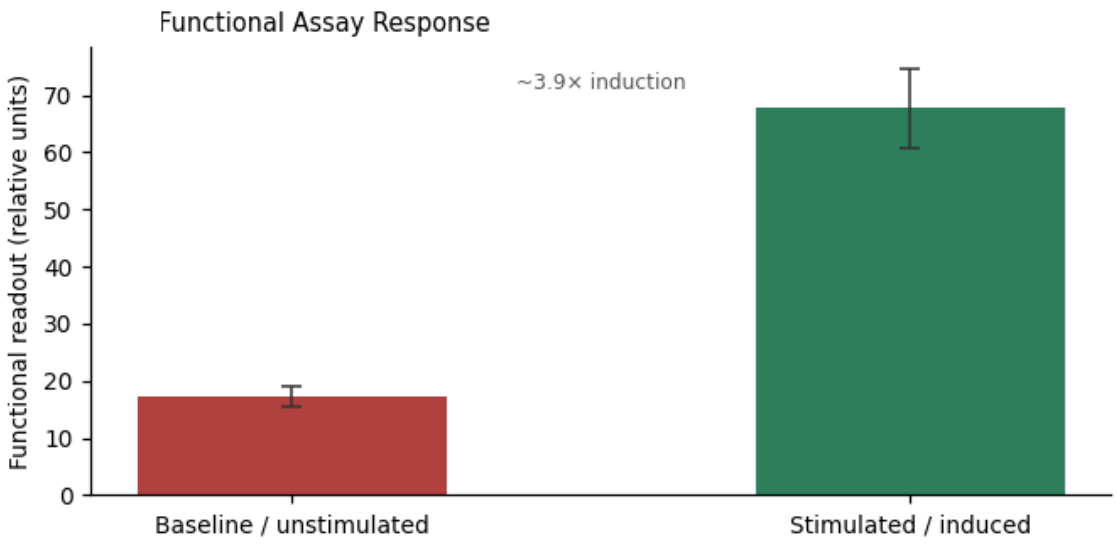

Figure 3. Functional assay readout — ~3.9× induction over baseline.

6. QC Acceptance Criteria

Acceptance Criterion	Result
Positive Oil Red O staining post-induction (≥60% lipid-laden cells)	PASS
PPAR-γ/FABP4 expression confirmed by ICC or qPCR	PASS
Apparent population doubling time	≈ 45 hours
Functional assay outcome	~3.9× 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.