

# Primary Canine Lingual Muscle Skeletal Muscle Cells (LMSMC)

SKU: CDS11895 | Category: Primary Cells — Dog

**Validation & Biomarker Data Guide** · Lineage classification: Skeletal myoblast

## 1. Product Overview

Primary Canine Lingual Muscle Skeletal Muscle Cells (LMSMC) is a primary cell product from canine Tongue for physiologically relevant in vitro studies. The product is particularly relevant to Tongue Skeletal Muscle Cells and Tongue Muscle Cells 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: Tongue | Growth type: Adherent Cells | Tumorigenic status: Normal Cells | Pack size: 1 x 0.5 million cells

## 2. Typical Applications

- Tongue Skeletal Muscle Cells
- Tongue Muscle Cells

## 3. Identity & Phenotypic Marker Panel

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

| Marker          | Expected Result | Range            |
|-----------------|-----------------|------------------|
| Desmin          | Positive        | 80–97% positive  |
| MyoD            | Positive        | 65–92% positive  |
| Pax7            | Positive        | 50–85% positive  |
| CD31            | Negative / low  | ≤3% (background) |
| Pan-cytokeratin | Negative / low  | ≤4% (background) |

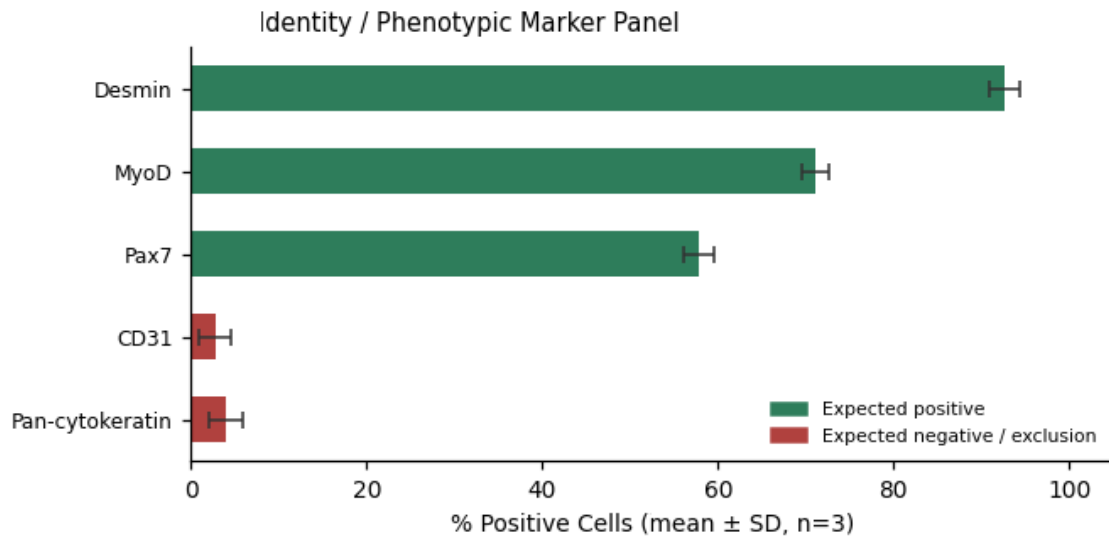


Figure 1. Marker expression profile (mean  $\pm$  SD, n = 3 replicates).

#### 4. Growth Kinetics & Viability

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

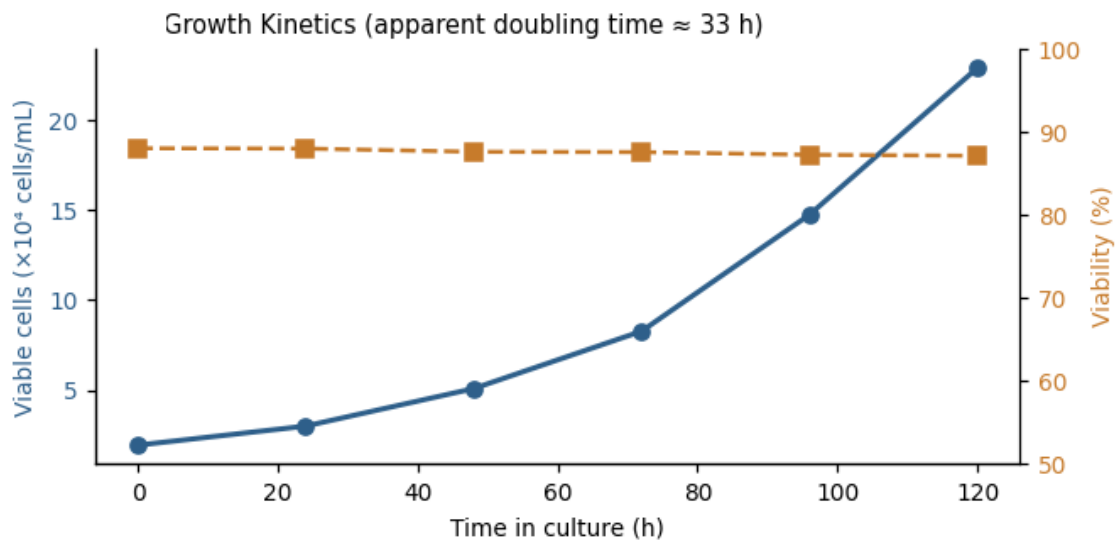


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

#### 5. Functional Validation Assay

**Myotube fusion assay:** Low-serum induction of myoblast fusion into multinucleated myotubes, quantified by fusion index (myosin heavy chain IHC / nuclei count).

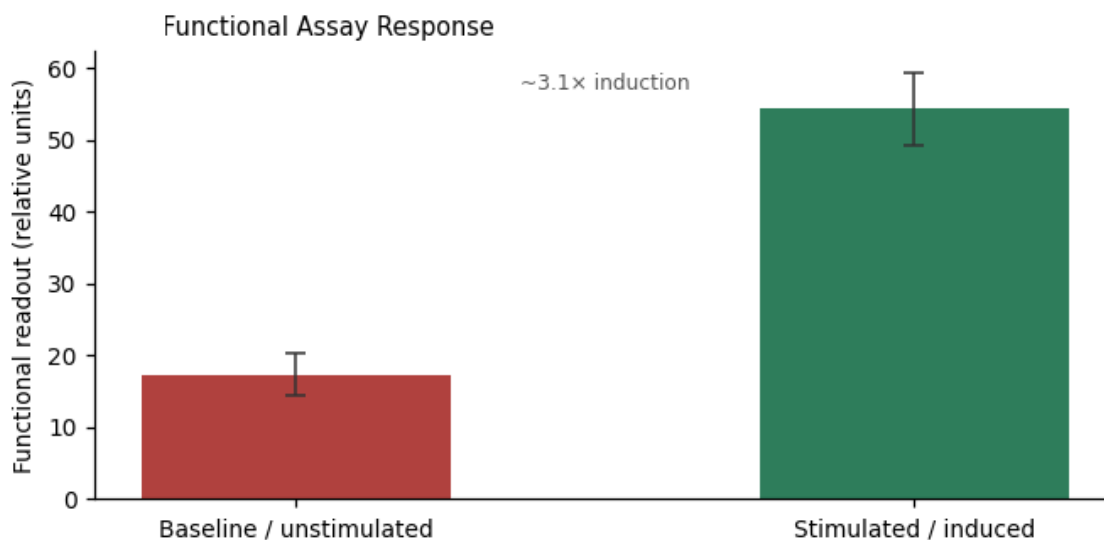


Figure 3. Functional assay readout —  $\sim 3.1\times$  induction over baseline.

## 6. QC Acceptance Criteria

| Acceptance Criterion                                     | Result                                   |
|----------------------------------------------------------|------------------------------------------|
| $\geq 80\%$ Desmin+ by ICC                               | PASS                                     |
| Fusion index $\geq 40\%$ after differentiation induction | PASS                                     |
| Apparent population doubling time                        | $\approx 33$ hours                       |
| Functional assay outcome                                 | $\sim 3.1\times$ 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.