

# Primary Rabbit Auricular Chondrocytes (ACC)

SKU: CDS11544 | Category: Primary Cells — Rabbit

**Validation & Biomarker Data Guide** · Lineage classification: Chondrocyte

## 1. Product Overview

Primary Rabbit Auricular Chondrocytes (ACC) is a primary cell product from rabbit Auricular Cartilage for physiologically relevant in vitro studies. The product is particularly relevant to Ophthalmology & Otorhinolaryngology and Chondrocytes 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: Auricular Cartilage | Growth type: Adherent Cells | Tumorigenic status: Normal Cells | Pack size: 1 x 0.5 million cells

## 2. Typical Applications

- Ophthalmology & Otorhinolaryngology
- Chondrocytes
- Eye, ear, nose, throat and oral systems

## 3. Identity & Phenotypic Marker Panel

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

| Marker      | Expected Result | Range             |
|-------------|-----------------|-------------------|
| Collagen II | Positive        | 70–95% positive   |
| Aggrecan    | Positive        | 65–92% positive   |
| SOX9        | Positive        | 70–95% positive   |
| Collagen I  | Negative / low  | ≤25% (background) |
| CD31        | Negative / low  | ≤3% (background)  |

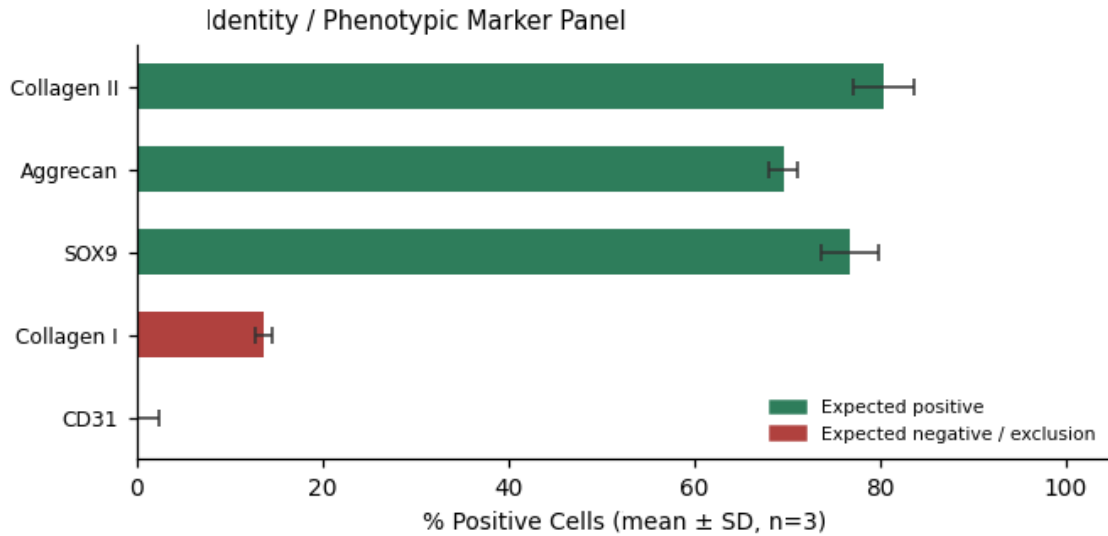


Figure 1. Marker expression profile (mean ± SD, n = 3 replicates).

#### 4. Growth Kinetics & Viability

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

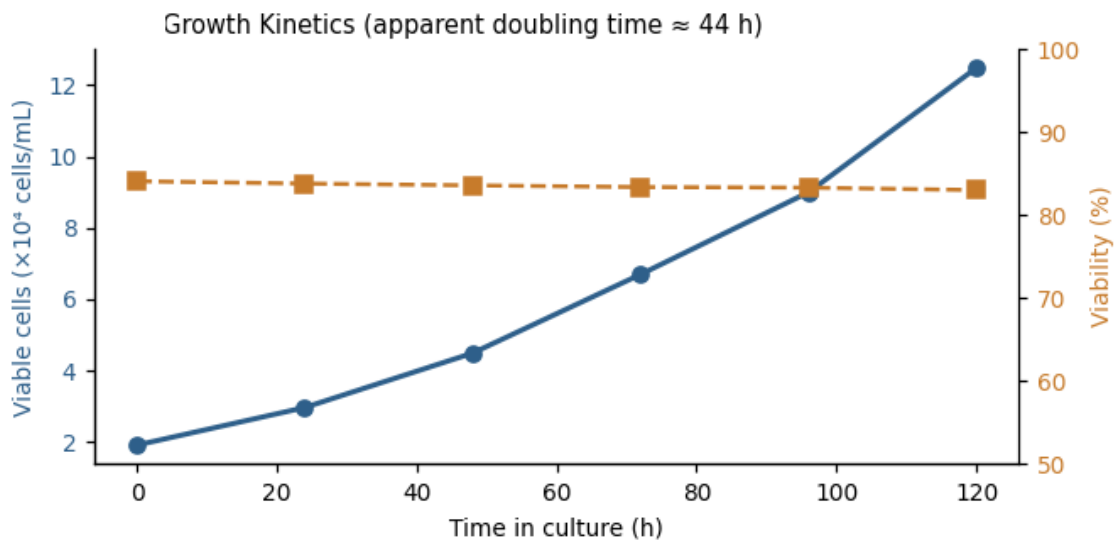


Figure 2. Growth curve (viable cell density, left axis) and viability trend (right axis).

#### 5. Functional Validation Assay

**Chondrogenic matrix / pellet culture assay:** 3D pellet culture with Alcian Blue / Safranin-O staining and Collagen II IHC to confirm cartilage-specific ECM deposition; GAG content quantified by DMMB assay.

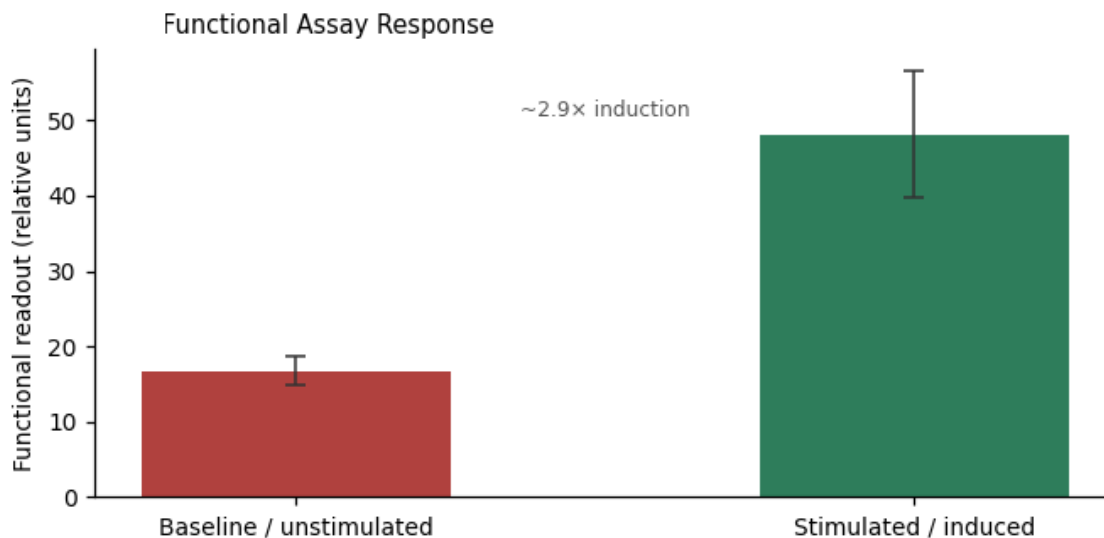


Figure 3. Functional assay readout — ~2.9× induction over baseline.

## 6. QC Acceptance Criteria

| Acceptance Criterion                                                     | Result                        |
|--------------------------------------------------------------------------|-------------------------------|
| ≥70% Collagen II+/SOX9+ by ICC                                           | PASS                          |
| Positive Alcian Blue/Safranin-O staining in pellet culture               | PASS                          |
| Low Collagen I:II ratio (dedifferentiation index within reference range) | PASS                          |
| Apparent population doubling time                                        | ≈ 44 hours                    |
| Functional assay outcome                                                 | ~2.9× 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.