

# Rat Diaphragmatic Muscle Cells

Cat. No. ARP0332,  $5 \times 10^5$  cells/vial

## Description

Research on the Rat Diaphragmatic Muscle Cells is essential to the study of diaphragmatic paralysis, muscular dystrophy models, ventilator-induced diaphragm dysfunction, and phrenic nerve injury. The diaphragm is a large, dome-shaped muscle located at the base of the lungs. It is composed of skeletal muscle and connective tissue, with a central tendinous region. As the primary muscle of respiration, the diaphragm plays a vital role in breathing. When it contracts, it moves downward, increasing the volume of the thoracic cavity and allowing air to be drawn into the lungs. When it relaxes, it moves upward, reducing thoracic volume and assisting in exhalation. The Rat Diaphragmatic Muscle Cells are to be used with Rat Diaphragmatic Muscle Cell Medium (Cat. No. ACM0332). This product is intended for laboratory in vitro use only. It is not intended for diagnostic, therapeutic, or clinical applications.

## Specification

Cell Type: Muscle Cells

Tissue/Organ: Diaphragm

Disease: Normal

Species: *Rattus norvegicus* (Rat)

Genetic Background: N/A

Markers:  $\alpha$ -Actin

Symbols: RDMC

## Shipping & Storage

Shipping condition: Frozen on dry ice.

Storage condition: Liquid nitrogen (LN<sub>2</sub>) cryopreservation.

## Intended Use



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## Culturing Guidance

Morphology: Elongated fusiform

Growth Mode: Adherent

Temperature: 37°C

Atmosphere: 5% CO<sub>2</sub>

## Unpacking and Storage Instructions

1. Visually inspect all packaging components for integrity and verify adequate dry ice.  
If any damage is observed, notify Ascent Technical Support immediately.
2. Prioritize transfer to liquid nitrogen vapor phase storage system (-130°C or below).  
Secondary option: -80°C mechanical freezer (short-term storage only).  
Always maintain temperature strictly below -65°C.

## Disclaimer

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