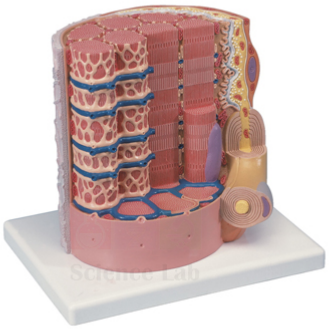
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Product Name :

Skeletal Muscle Fiber Model

Product Code :

SLE/A/95



Science Lab

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Description :

Skeletal Muscle Fiber Model (Product Code: SLE/A/95) represents the microstructure of asingle skeletal muscle fiber in great detail, enlarged to 10,000x life size and mounted on areinforced polymer base. It includes the neuromuscular junction, sarcoplasmic reticulum, Ttubules and myofibrils, the structures students need to understand how a nerve signal becomes amuscle contraction. The model is used in physiology, histology, sports science and senior biology teaching, and is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala.

Specifications

Parameter	Detail
Scale	10,000x life size
Size	25 x 23 x 23 cm
Mounting	Reinforced polymer base
Subject	Microstructure of a skeletal muscle fiber
Structures included	Neuromuscular junction, sarcoplasmic reticulum, T tubules, myofibrils

Typical Use

Excitation–contraction coupling is one of the most abstract topics in physiology, and this model makes it concrete. A lecturer can begin at the neuromuscular junction where the motor nerve meets the fiber, show how the T tubules carry the signal deep into the cell, point to the sarcoplasmic reticulum that releases calcium, and finish at the myofibrils where contraction actually takes place. Seeing these structures wrapped around one another explains why the signal reaches the whole fiber almost at once.

Sports science and physiotherapy tutors use it when discussing fatigue, cramps and training adaptations, and histology classes pair it with stained muscle sections so students can relate the striations they see under the microscope to the myofibrils on the model. It is a compact addition to cell biology equipment for any department teaching muscle physiology.

Manufacturer

Manufacturing of this microstructure model is carried out by **Jain Scientific Equipments Private Limited** of Ambala, Haryana, a company better known to schools and colleges as **ScienceLab**. Our company profile describes the business and its product lines.

Related Human Models

Models and slides that complete a unit on muscle tissue:

- Microstructure of Smooth Muscle Model — contrasts skeletal fibers with smooth muscle cells
- Skeletal Muscle, Longitudinal and Transverse Incisions — real muscle sections to compare
- the
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