

Myofibril

Thin (actin) filament

Thick (myosin) filament

Sarcomere



The diagram illustrates a myofibril, a long cylindrical structure composed of repeating units called sarcomeres. Each sarcomere contains thin (actin) filaments and thick (myosin) filaments. The thin filaments are shown as red horizontal lines, and the thick filaments are shown as blue horizontal lines. The sarcomeres are separated by vertical lines representing Z-discs. A cross-section of the myofibril is shown on the right, revealing a regular arrangement of red and blue dots representing the filaments. Labels include 'Myofibril' at the top, 'Thin (actin) filament' and 'Thick (myosin) filament' on the left, and 'Sarcomere' at the bottom, all with arrows indicating their respective parts.