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Muscles and Muscle Tissue

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| **Across**  **4.** a pale band across a striated muscle fiber that consists of actin  **7.** appears as a lighter band in the middle of the dark A band at the centre of a sarcomere  **8.** a protein of muscle that together with tropomyosin forms a regulatory protein complex controlling the interaction of actin and myosin  **13.** sheath of connective tissue surrounding a bundle of muscle fibers  **14.** efers to the condition in which muscles of the body remain semi-contracted for an extended period  **16.** a protein found in microfilaments  **20.** the cell membrane of a striated muscle fiber cell  **21.** protein found in muscle tissue as a thick filament  **24.** A muscular contraction in which the length of the muscle does not change  **26.** The operation of most skeletal muscles involves leverage  **28.** responsible for the passive elasticity of muscle  **29.** the repeating unit between two Z lines  **31.** a muscle that moves in one direction  **33.** a motor neuron and the skeletal muscle fibers innervated by that motor neuron's axonal terminals  **34.** connective tissue within the muscle  **35.** the decline in ability of a muscle to generate force | **Down**  **1.** the point of attachment in a muscle where more movement occurs  **2.** any of the dark thin bands across a striated muscle fiber  **3.** extensions of the cell membrane that penetrate into the centre of skeletal and cardiac muscle cells  **5.** fibrous tissue surrounding the cell  **6.** controlled by an individual's will  **9.** the continuous and passive partial contraction of the muscles  **10.** maintain constant tension in the muscle as the muscle changes length  **11.** a muscle that contracts while another relaxes  **12.** multinucleate cells that make up skeletal muscles  **15.** a single contraction resulting from a threshold stimulus  **17.** a bundle of structures  **18.** the filaments of myofibrils, constructed from proteins, principally myosin or actin  **19.** the attachment site that doesn't move during contraction  **22.** the striated region of a sarcomere  **23.** a movement of a muscle that causes it to become tight  **25.** an iron- and oxygen-binding protein found in the muscle tissue  **27.** the cytoplasm of a myocyte  **30.** is in the center of the A band  **32.** is closer to the fulcrum of a lever |