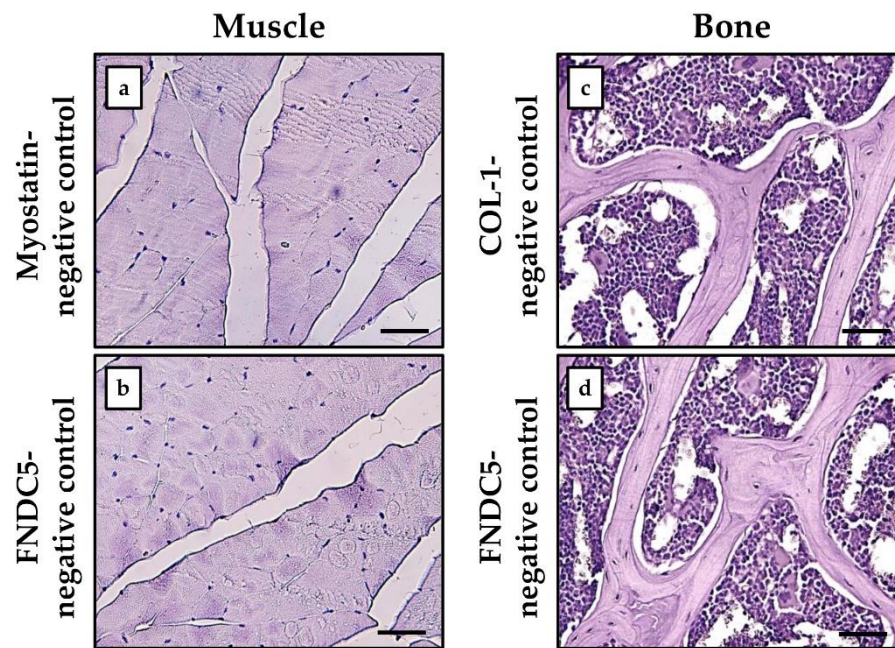


**Figure S1. Immunohistochemistry and western blotting analysis in brain tissues.** (a) BDNF-negative control in cerebellar tissue. (b) FNDC5-negative control in cerebellar tissue. (c) BDNF-negative control in hippocampal tissue. (d) FNDC5-negative control in hippocampal tissue. In all panels, 20× images, scale bar represents 50  $\mu\text{m}$ . (e) Western blotting analysis on cerebellar and hippocampal tissues to distinguish BDNF isoforms. The band shown corresponds to the mature form of BDNF, with a molecular weight of approximately 14 kDa.



**Figure S2. Immunohistochemistry analysis in musculoskeletal tissues.** (a) Myostatin-negative control in muscle tissue. (b) FNDC5-negative control in muscle tissue. (c) COL-1-negative control in bone tissue. (d) FNDC5-negative control in bone tissue. 20× images, scale bar represents 50 μm.