

Isozymes of myosin in regenerating rat muscles

G. Maréchal, Ketty Schwartz, Godelieve Beckers-Bleukx and E. Ghins

*Department of Physiology, University of Louvain,
B-1200 Brussels, Belgium, and U 127, INSERM,
Paris, France*

Native myosin isozymes of rat muscle have been isolated by electrophoreses in nondissociating conditions. Their mobilities were measured, using taenia coli as an internal standard and their relative concentrations were determined by computer planimetry of the electrophoretograms. Three isozymes were observed in adult extensor digitorum longus, two in adult soleus. four in neonatal leg muscles and four in leg muscles three days before birth. Regenerates of minced extensor digitorum longus or soleus muscles in adult animals had no native myosin the third day after surgery; they were similar to neonatal muscles 15 days after surgery and to adult muscles 60 days after surgery. Thus embryonic and neonatal myosin isozymes are transiently reexpressed in muscles regenerating in adult environment.