

Post-natal changes of myosin heavy chains in rat uterus

D. Yüksel and G. Maréchal

Department of Physiology, U.C.L. 5540, 1200 Brussels, Belgium

Myosin heavy chains of Guba-Straub extracts of rat uterus were separated by electrophoresis on 30% glycerol 5% PAA gels (with a stacking gel of 3%) and quantified by densitometry. Three myosin heavy chains were observed with apparent molecular weights of 204 kDa (MHC 204), 207 kDa (MHC 207) and intermediate (MHC IM), between 204 and 207 kDa. Their relative proportions depend on the age of the rats. MHC 207 is present at all ages, (birth–200 days) and it is always the most abundant form (60–70%). MHC IM is observed only during the peri-natal period (0–10 days). MHC 204 is present in rats 40, 90 or 200 days of age, but is absent in the perinatal period (0–10 days). MHC IM appears to be rapidly and completely substituted by MHC 204 between 10 and 40 days of age, since we observed no cases of simultaneous presence of the three myosin heavy chains. The extracting solution (Guba-Straub solution) contained pyrophosphate but not ATP: if ATP (0.2–10 mM) is added to the extracting solution, more myosin heavy chains are dissolved, but the relative proportions of the isoforms are not changed.