

Myosin isozymes in vertebrate smooth muscle

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Crude extracts of taenia coli (guinea-pig), gizzard (chicken), stomach, colon, ureter, bladder, mesenteric vein, mesenteric artery, uterus and vas deferens (dog) were electrophoresed under conditions which do not denature myosin (pyrophosphate gels). Two isozymes (G1 and G2) were observed in all cases. Their mobilities are the same in all organs, but there are some variations in their relative proportions. They have an ATPase activity. • The light chains (L20 and L17) are the same for both isozymes, but the heavy chains are different. Isozyme G2 contains one type of heavy chain of an apparent molecular weight of 230 kDa, whilst isozyme G1 contains two types of heavy chain: one of an apparent molecular weight of 230 kDa, and the other of an apparent molecular weight of 200 kDa.