Table A.1 Some useful numbers concerning vertebrate skeletal muscle (frog sartorius at $0^{\circ}C$)

Sarcomere length	2.0–3.0 μm (2.5 μm rest length)
Thick filament length	1.6 μm (about 300 myosin molecules)
Thick filament shaft diameter	15 nm
Thin filament length	1.0 μm (about 380 actin molecules)
Thin filament diameter	9 nm
Bare zone length	0.15 μm
Thick filament spacing (centre–centre)	42 nm (at rest length)
Thick–thin filament spacing (″)	22–30 nm (26 nm at rest length)
Thick–thin filament ratio	1:2 (in cross-section)
	1:4 (in total sarcomere)
Total actin content	600 nmol g^{-1} muscle (about 600 μM)
Total myosin content	120 nmol g^{-1} muscle (about 240 μM heads)
ATPase rate (isometric contraction)	0.5 μmol ATP/g muscle/s = 2.1 ATP/myosin head/s
(isotonic contraction)	1.5 μmol ATP/g muscle/s = 6.3 ATP/myosin head/s
(relaxed)	< 0.5 nmol ATP/g muscle/s < 2×10^{-3} ATP/myosin head/s
ΔG for ATP hydrolysis	60 kJ mol^{-1} = 10^{-19} J per molecule
Isometric tension, P_o	20 N cm^{-2} (≅1.6 pN per myosin head)
Elastic modulus (stiffness)	4 kN cm^{-2} (isometric)
	0.025 kN cm^{-2} (relaxed)
Maximum shortening velocity, V_o	2 muscle lengths/s = 2.5 μm/s/half-sarcomere
Maximum power	44 mW g^{-1} muscle (at $V_o/3$)
Maximum thermodynamic efficiency	50% (at $V_o/3$)
Heat production (isometric)	13 mW g^{-1} muscle
Half-time to peak tension	50 ms
Half-time for relaxation	400 ms
Myosin subfragment 1 ATPase	0.01 s^{-1} (in solution)
Actin-activated subfragment 1 ATPase	4.5 s^{-1} (in solution)

Based on references 2, 3, 29, 47 (rates and velocities are about 5 to 10 times higher for rabbit psoas muscle at 20°C)