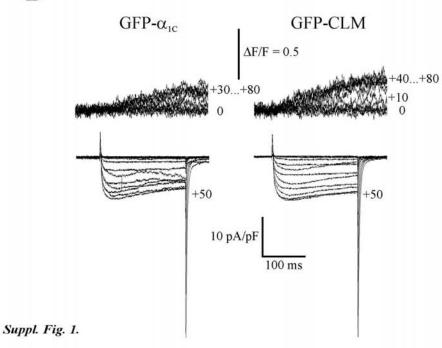


B



Restoration of intracellular Ca²⁺ release and Ca²⁺ currents following expression of chimera GFP-CLM in dysgenic myotubes. *A)* Field stimulation experiments (40 V, 10 ms, 0.3 Hz) evoked rapid intracellular Ca²⁺ transients in dysgenic myotubes expressing GFP-CLM. Ca²⁺ release was blocked by bath application of 0.5 mM Cd²⁺/0.1 mM La³⁺, thus demonstrating cardiac-type (Ca²⁺ dependent) EC coupling (compare to Figs. 3B and 3C of Kasielke et al., 2003). Immediate Cd²⁺/La³⁺ block was observed in all of the 80 fluorescing cells examined. Arrows indicate pulse stimulations; the gray bar indicates Cd²⁺/La³⁺ application. *B)* Simultaneous recordings of depolarization-induced Ca²⁺ transients (upper) and whole-cell Ca²⁺ currents (lower) from myotubes expressing GFP-α_{1C} and GFP-CLM revealed comparable macroscopic characteristics from both constructs. Step depolarizations from -50 to +80 mV were applied in 10 mV increments (200-ms test pulses) from a holding potential of -80 mV. Electrophysiological recordings and subsequent analysis was performed as previously described (Kugler et al., 2004).