

Supplementary Videos

Cytotoxicity of snake venom Lys49 PLA2-like myotoxin on rat cardiomyocytes ex vivo does not involve a direct action on the contractile apparatus

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Supplementary video 1. Mt-II induces strong and irreversible hypercontraction of intact cardiomyocytes. After a short baseline period, a bolus of Mt-II-containing HEPES solution yielding a Mt-II concentration of 50 µg/mL was gently administrated in a well containing intact cells on a coverslip. Note the asynchronous reaction of neighboring cells to Mt-II with some of them twitching strongly while others are barely affected. After a longer time span, however, all cells achieve the same final state of irreversible hypercontraction. Bright-field microscopy. Magnification: 20X. Temperature 37°C.

Supplementary video 2. Example of acquisition of data presented in Fig. 2a. A bolus of Mt-II-containing HEPES solution yielding a Mt-II concentration of 25 µg/mL was gently administrated in a well containing intact cells on a coverslip. The same region of the coverslip was continuously observed. At this Mt-II concentration, the response of the cells was slow and the final state of hypercontraction was typically achieved after 15-20 min as shown in Fig. 2c. Bright-field microscopy. Magnification 4X. Temperature 37°C.

Supplementary video 3. Example of acquisition of data presented in Fig. 2a. Same conditions as in Online Resource 2 but at 50 $\mu\text{g}/\text{mL}$ Mt-II. Note the faster, stronger response of the cells to this toxin concentration.

Supplementary video 4. Hypercontraction of an intact cardiomyocyte shortly after exposure to 50 $\mu\text{g}/\text{mL}$ Mt-II in HEPES solution. Bright-field microscopy. Magnification 40X. Temperature 37°C.

Supplementary video 5. Same conditions as in Online Resource 4 but in presence of 50 μM AmBleb. Note that the myosin inhibitor precludes the Mt-II induced hypercontraction of the cells.