



Movie 1. 24 hr timelapse video-microscopy of mBMMs after 5 days of mCSF + RANKL. mBMMs were cultured towards osteoclasts in the presence of mCSF (100 ng/mL) + RANKL (100 ng/mL). Video-microscopy was performed using 10X objective on the same field at 10-minute intervals for 24 hours. Multinucleated (MNC) and mono-nucleated cells are present. MNC cells show different morphologies, some with nuclei at cell periphery and some condensed with nuclei centralized. Within 3h of time-lapse video-microscopy, fusion events are observed between mononuclear and multinuclear cells. The large multinucleated OCL in the left part of the video at $t=0$ begins to shrink at 6h and appears apoptotic between 9-12h of culture. Another large OCL remains condensed and is apoptotic within 24h. Both of the large multinucleated OCL at $t=0$ later become large, apoptotic osteoclasts, with disintegrating cell membranes.