

**S2** Fig. Time-lapse imaging of FtsZ during the vegetative cell cycle of *L. lactis* (additional example). *L. lactis* cells expressing the FtsZ-Venus fluorescent protein were grown on agar pads and visualized by phase contrast (PC) and epifluorescence (FtsZ-Ve) microscopy (see S3-4 Movies). Pictures were taken every 10 min. The inset shows an enlargement of specific 'V-like' FtsZ structures frequently observed at the early stages of cell elongation. Scale bar, 2 µm.