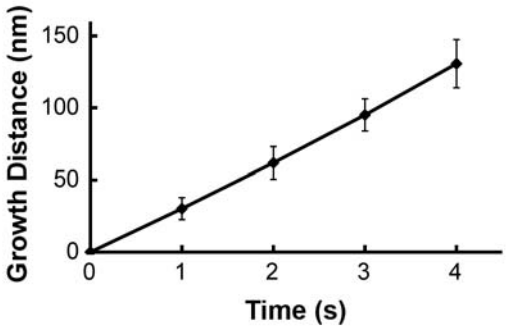

Figure S1. Elongation velocity of fibrillar lithostathine. The graph represents the growth distance of fibrils or protofibrils as a function of time. The zero values are origins of measurement in time and position. The bar errors correspond to S.D. values.

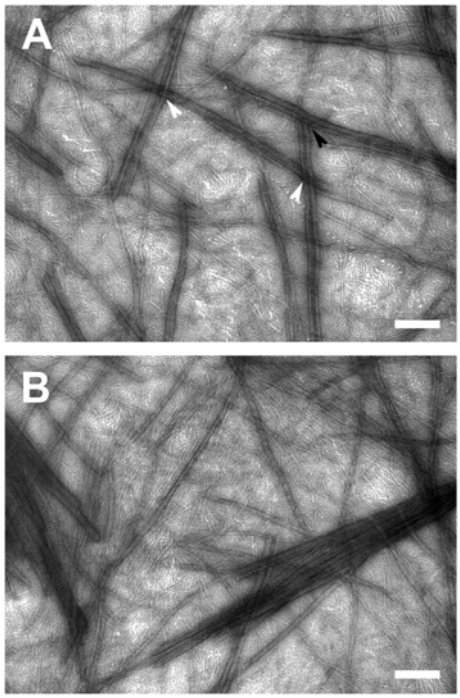

Fig S2. Electron microscopy micrographs of the lithostathine S1 form. The S1 form was coated on a Formvar-coated copper grid for 60 s, dried with a filter paper and stained with uranyl acetate as previously described (Gregoire C, et al. (2001) EMBO J 20: 3313–3321). Specimens were then observed with a Jeol 1220 transmission electron microscope. Lateral association of lithostathine fibrils was clearly observed in A and B. White arrowheads highlight overlapping of fibrils whereas the black arrowhead indicates the association of the end of two laterally associated protofibrils with the edge of another fibril. The scale bar is 250 nm.

Movie S1.

High Speed AFM imaging of lithostathine. After 30 min trypsin incubation of the full-length lithostathine, fibrils as well as globular structures can be observed. The movie shows the growth of two different fibrils that are blocked by the edge of another fibril. In the last part of the movie, the association of one fibril on top of another is clearly observed. Most of the fibrils seem to be composed of several laterally associated protofibrils (see Fig. 2B). The scan size is 300 nm×300 nm (128×128 pixels) and the height scale is automatically adjusted during scanning. The scanning rate is 1 image/s and the movie is accelerated five times.

(10.38 MB AVI)

Movie S2.

High Speed AFM imaging of lithostathine protofibril elongation stacked on the top of laterally associated protofibrils. The movie shows the growth of one protofibril at the top of a bundle of laterally associated protofibrils. The scan size is 300 nm×300 nm (128×128 pixels) and the height scale is automatically adjusted during scanning. The scanning rate is 1 image/s and the movie is accelerated five times.

(0.25 MB AVI)

Movie S3.

High Speed AFM imaging of helical fibrils. Two sequences of helical fibril images are shown in this movie. First sequence: the slight helical unwinding is shown. A single protofibril is also swept away by the tip. Second sequence: real time imaging of one single protofibril protruding from a long paired helical filament. The coating of one protofibril on mica is also observed. The scan size is 300 nm×300 nm (128×128 pixels) and the height scale is automatically adjusted during scanning. The scanning rate is 1 image/s and the movie is accelerated five times.

(9.59 MB AVI)