



Fig. S1

Distribution of the durations of the spontaneous stoppage. The data from the experiments with $150 \mu\text{g ml}^{-1}$ 21S dynein from sperm of *Pseudocentrotus depressus* in assay buffer with an ATP regeneration system. n: number of microtubules.



Movie 1

A microtubule that showed backward sliding in the anterior region in response to imposed bending in the posterior region. The sequential pictures of this movie are shown in Fig. 7A. The number on the upper left corner of this movie indicates time (seconds) after the beginning of this movie. Backward sliding is induced by imposed bending that begins at 20.1 s. This time point is redefined as “0 s” in Fig. 7A. Scale bar: 10 μm .



Movie 2

A microtubule that showed backward sliding in the whole length in response to imposed bending in the posterior region. The sequential pictures of this movie are shown in Fig. 7C. The number on the upper left corner of this movie indicates time (seconds) after the beginning of this movie. Backward sliding is induced by imposed bending that begins at 10.5 s. This time point is redefined as “0 s” in Fig. 7C. Scale bar: 10 μm