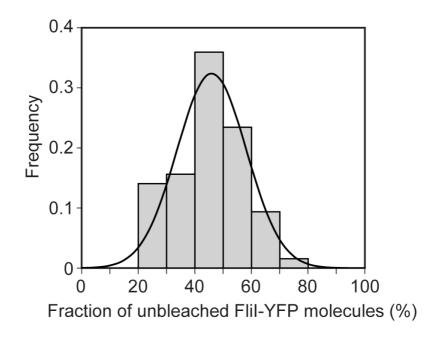
## **Supplementary Information**

Assembly dynamics and the roles of Flil ATPase of the bacterial flagellar export apparatus

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**Supplementary Fig. 1** Fraction of unbleached Flil-YFP molecules in the cytoplasm after one-shot photobleaching in TIRF-FRAP experiments. The fluorescence intensities of Flil-YFP in MKM30/pJSV203 under epi-fluorescence were compared before and after photobleaching by a strong excitation under TIRF. In total, 64 Flil-YFP spots were analyzed. The fraction distributions were fitted by Gaussian functions.

**Supplementary Movie S1.** Flil-YFP turnover at the flagellar base in a TIRF-FRAP experiment. Flil-YFP spots in *Salmonella* MKM30 strain harboring pJSV203 were observed under continuous TIRF illumination for 60 seconds after photobleaching. Arrowheads indicate the Flil-YFP spots showing a rapid turnover several times.