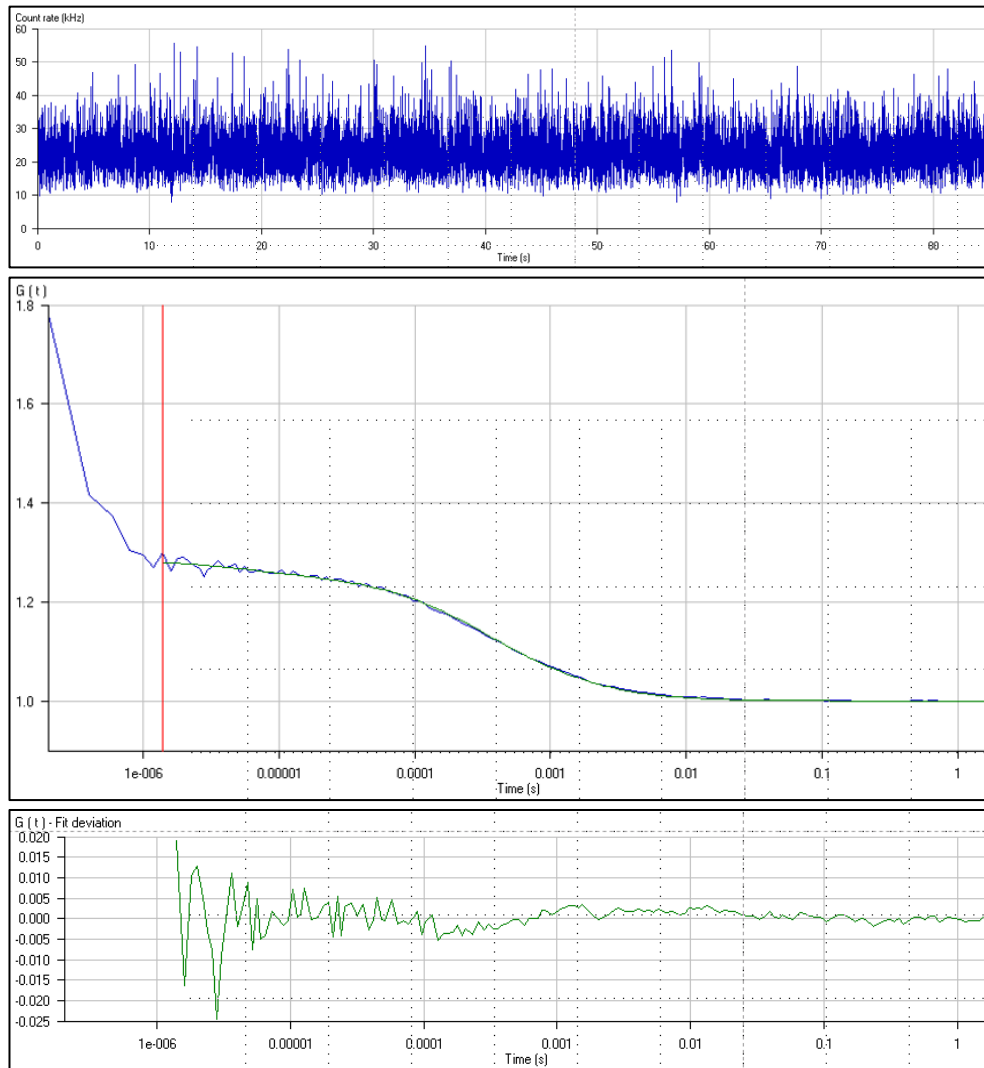


**Figure S1: Specificity of BH296-DY647 for PfFNT** Live cell imaging of hsMCT4-GFP stably expressed in HEK293 (left) cells and coincubation with BH296-DY647 (middle). No co-localization was observed (right).



Channel	Count rate [kHz]	Counts per molecule [kHz]	Amplitude Number particles	Component 1 Diffusion time [μs]
GFP	22.8	5.944	2.536	373

**Figure S2: Homogeneous and monodispersed solubilization of PfFNT-GFP** FCS signal fluctuations induced by PfFNT-GFP solubilized in 1% LMNG (upper panel), corresponding correlation curve fitted to a 1 component diffusion model with fit deviation (lower panel).