



Figure S1. Localization of GbpC during chemotaxis. *Dictyostelium* cells co-expressing GbpC-GFP and cytosolic-RFP were exposed to a cAMP spatial gradient using a micropipette with 1 μM cAMP. The gradient at the cell is approximately 500 pM/ μm at a mean concentration of 50 nM. Images were taken using a confocal fluorescent microscope. The inset shows a typical cell. The red channel (cytosolic-RFP) represents the amount of cytoplasm in each pixel. The green channel (GbpC-GFP) reveals the amount of GbpC in the cytoplasm and cortex. The amount of GbpC in the cortex was calculated for the outer three pixels (600 nm) of the cell in the front quarter, middle half and rear quarter of the cell. Calculated was (green minus red)/red, in which the red signal was corrected for differences in expression between GbpC-GFP and cytosolic-RFP using the average fluorescence intensity of green and red of the cytoplasm in the center of the cell. The data shown are the means and SEM with $n = 59$.