

F		Subcellular fractions		
	Soluble	Membrane	Magnetosome	
Ratio of immunoblotting band intensiti	es <sup>a</sup>			
Maml-GFP $(N = 4)$	0.95	13	100	
MamC-GFP $(N = 5)$	0.072	0.38	100	
Protein contents <sup>b</sup>	77%	23%	0.1%	
Caliculated GFP-labeled protein conte	ents			
Maml-GFP	19%	78%	3%	
MamC-GFP	23%	36%	41%	

<sup>&</sup>lt;sup>a</sup> Means of band intensities in magnetosome fractions were set as 100.

FIG S1 (A) Localizations of MamI-GFP and MamC-GFP in wild-type and Δ*mamK M. magneticum* AMB-1. Immunoblotting with anti-GFP antibody of proteins (10 μg/lane) extracted from the soluble, membrane, and magnetosome fractions. Both GFP-fused MamI and MamC were predominantly located in the magnetosome fractions. (B and C) Subcellular localizations of MamI-GFP and MamC-GFP. Merged GFP and bright field images of (B) MamI-GFP and (C) MamC-GFP expressed cells. (D) Transmission electron microscope image of *M. magneticum* AMB-1. The red circles show the positions of empty vesicles. (E) Summary table of MamI-GFP and MamC-GFP localizations estimated from the immunoblotting. Band intensities were measured in immunoblots of the soluble, membrane, and magnetosome fractions (5 μg protein/lane) prepared from wild-type cells. Contents of MamI-GFP and MamC-GFP in each fraction were calculated using the ratio of immunoblotting band intensities and the percentages of protein contents of each subcellular fraction.

<sup>&</sup>lt;sup>b</sup> Percentage of total amount of cellular protein.